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The Trade Wind Zone Oceanography Pilot Study Part VIII: Sea-Level Meteorological Properties and Heat Exchange Processes July 1963 to June 1965

By Gunter R. Seckel

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ABSTRACT

Meteorological data were summarized and large-scale heat exchange processes computed, in 5° square units of the area lat. 0° to 35° N., long. 130° to 170° W., for each month. The results complement time-sequence oceanographic observations of the Trade Wind Zone Oceanography Pilot Study in the area lat. 10° to 26° N., long. 148° to 157° W., February 1964 to June 1965. The source and processing of meteorological data, and the computation of the radiation from sun and sky, the effective back radiation, the heat of evaporation, and the conduction of sensible heat are described. The results are consistent with monthly heat exchange processes computed from long-term mean meteorological properties in the North Pacific. Despite inadequacies in the distribution and quality of data, the meteorological data summaries and the derived heat exchange processes are adequate for interseason and interyear comparisons of large-scale, sea-air interactions.

INTRODUCTION

This report contains monthly summaries of sea-level meteorological observations and derived heat exchange processes at the sea surface in the area bounded by lat. 0° and 35°N. and long. 130° and 170° W., July 1963 through June 1965. The meteorological data complement the TWZO (Trade Wind Zone Oceanography) Pilot Study oceanographic data that were published in the first six reports of this series (Charnell, Au, and Seckel, 1967a-f).

The TWZO Pilot Study is designed to further an understanding of the mechanisms that change the distribution of sea-water properties and water masses in the North Pacific trade wind zone (Seckel, 1968). The meteorological processes are an essential part of these mechanisms.

The oceanographic field work took place from February 1964 through June 1965 in the area from lat. 10° to 26° N. and long. 148° to 157° W. Oceanographic stations in a fixed grid were occupied at monthly intervals.

Meteorological processes at the sea surface are intimately related to the behavior of the trade wind system. The area of interest, therefore, encompasses the region of strongest trade winds, which is located between the North Pacific high and the equatorial low pressure regions. Figure 1 shows the areas of the TWZO oceanographic and meteorological observations. Because the results reported here begin in July 1963, they antecede and cover the oceanographic study period.

Meteorological data summaries and the derived heat exchange processes are presented in two tables, which show the information for every month of the 2-year study period. Table A contains mean values per 5° square of the air temperature, the difference between water and air

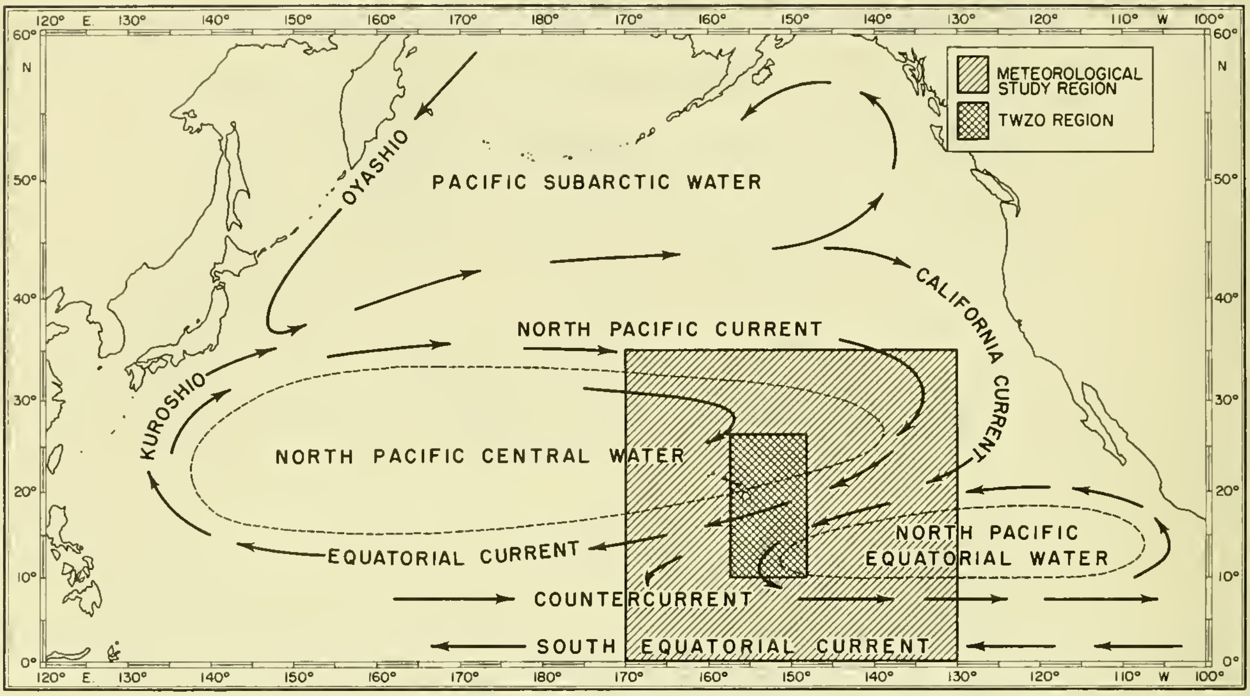

Figure 1.--The oceanographic and meteorological observational regions for the Trade Wind Zone Oceanography Pilot Study.

temperature, the difference between the saturation vapor pressure of water and air vapor pressure, the vapor pressure of the air, the cloud cover, the sea level atmospheric pressure, the wind speed, and the zonal and meridional components of the wind velocity. Table B contains interpolated values for the center of each 5° square of the sea-water temperature, the air temperature, the vapor pressure of the air, the cloud cover, and the wind speed. Tabulated alongside these meteorological properties are the derived heat exchange processes: the radiation from sun and sky, the back radiation, the heat of evaporation, the conduction of sensible heat, and the net heat exchange across the sea surface. Interpolated meteorological properties and their derived heat exchange processes are presented in geographic format to facilitate contouring.

The magnetic tape containing the data that were used for the summaries and for the derived heat exchange processes computed for each weather record is kept on file to permit a more detailed analysis than is presented here.

The sources of data, the methods of processing, and the computation of heat exchange processes, as well as an evaluation of the results, are presented below.

SOURCES OF DATA

About 80,000 sets of meteorological observations were used in the preparation of this report. Their principal source was the surface marine observations Card Deck No. 128 of the National Weather Records Center. To those data were added the meteorological observations recorded on board the BCF (Bureau of Commercial Fisheries) research vessels *Townsend Cromwell* and *Charles H. Gilbert* which were not already a part of the surface marine deck.

Meteorological data in latitudes of the central North Pacific south of Hawaii are scarce. It is therefore valuable to add to the surface marine observations those made on Johnston Island (lat. 16°45' N., long. 169°30' W.) and on Christmas Island (lat. 1°51' N., long. 157°23' W.). Because both islands are atolls, the early morning meteorological conditions would approximate those over the adjacent ocean.

Johnston Island sea level observations were obtained from the National Weather Records

Center, Card Deck No. 144. To these data were added the sea surface temperatures measured weekly at Johnston Island for BCF, Honolulu. At Christmas Island, meteorological observations are made three times daily and the sea surface temperature is measured daily for BCF. The sea surface temperatures and the 1800 G.m.t. synoptic meteorological observations from the two islands (0800 local time, Christmas Island, and 0700 local time, Johnston Island) have been combined with the surface marine data.

At the time of the initial sorting, derived properties and heat exchange processes were also computed. Thus the data tape referred to in the introduction contains in chronological order by day and by 1° square the sea surface temperature, the dry and wet bulb air temperatures, the sea level atmospheric pressure, the cloud cover, the sea-air vapor pressure difference, the vapor pressure of the air, the wind speed and direction, the zonal and meridional components of the wind velocity, the radiation from sun and sky, the effective back radiation, the heat of evaporation, and the conduction of sensible heat.

I planned originally to summarize the meteorological data for periods of, possibly, 5 days and then, by summation, obtain values for the monthly sea-air interaction processes. The spatial and temporal distribution of marine surface observations, however, proved inadequate to permit this procedure; I had to use the traditional climatic approach.

PROCESSING OF DATA

The meteorological data were initially sorted chronologically by day and by 1° square units of area. When more than one set of observations occurred in a 1° square per day, the meteorological properties, including the wind speeds and the zonal and meridional components of the wind velocity, were averaged. In consequence only one set of meteorological observations can occur per day in any 1° square.

Quality control over the large number of data proved to be a major task. In the initial sorting process, "flagging" values that fell outside the climatic limits proved unsuccessful. This procedure had been used in the preparation of the Indian Ocean meteorological atlas (Ramage, Miller, and Jefferies, in press). Too many observations that were consistent with surrounding data fell outside the climatic limits during the 2 years of this study. An initial listing of the data was therefore inspected without computer aid. Only obviously erroneous values, determined by comparison with values in the same geographic region and within a few days, were eliminated.

Of the original marine surface and island decks, I sorted only those meteorological data that enter into the computation of large-scale, sea-air interactions: the dry and wet bulb air temperatures; the sea-air temperature difference; the sea-level atmospheric pressure; the speed and direction of wind; and the total cloud cover.

The meteorological properties were, therefore, summarized by 5° square units of area and by months and are presented in table A. The summaries for each property contain the mean value, the highest and lowest values observed, the standard deviation if there were more than four observations, and the number of observations. In addition, the summary also includes the mean location of observations.

Smoothed charts of the sea surface temperature, the air temperature, the vapor pressure of the air, the cloud cover, and the wind speed were obtained by contouring the summarized data plotted at the mean location of the observations. This procedure had been used in the preparation of the Indian Ocean meteorological atlas (Ramage et al., in press). In turn, the smoothed charts were used to obtain interpolated values at the center of each 5° square, and to compute the radiation from sun and sky, the effective back radiation, the heat of evaporation, the conduction of sensible heat, and the net heat exchange across the sea surface. Table B presents both the interpolated values and the derived heat exchange processes.

When table B is used in combination with table A, it is possible to judge the reliability of the results in any area and month covered by this report.

HEAT EXCHANGE COMPUTATIONS

Sea-air interaction processes cannot, in general, be measured directly except for the radiative energy exchange. Radiation measurements over the oceans, however, are scarce. Quantitative evaluation of these processes, therefore, depends on computations in which empirically derived formulas are used. These formulas were reviewed by Laevastu (1960) and the more general subject of large-scale, sea-air inter-

actions has been discussed in detail by Malkus (1962). The empirical formulas are still the subject of intensive research and may change. Should changes be made, the derived results of this paper can be adjusted, since the original meteorological properties are also given.

Two criteria are important in the computation of the heat exchange processes presented in table B. First, the results must satisfy the needs of the TWZO investigation, in which relative changes from month to month and season to season are of primary interest. Secondly, there must be a basis for comparison with the results in the North Pacific such as were obtained by Wyrtki (1966).

The net heat gain or loss to the sea water as a result of the exchange processes at the sea surface is of interest to the oceanographer and is expressed in the budget equation

$$Q(N) = Q(S) - Q(B) - Q(E) - Q(C).$$

The net heat exchange across the sea surface, Q(N), is positive when the sea water gains heat. The terms on the right side of the equation are: Q(S), the radiation from sun and sky; Q(B), the effective back radiation; Q(E), the heat of evaporation; and Q(C), the conduction of sensible heat.

The following formulas have been used to compute the heat exchange processes in table B:

$$Q(S) = 0.98\, Q_o\, (1 - 0.30C - 0.38C^2)$$

$$Q(B) = 1.14\,(10)^{-7}\,(273.16 + T_w)^4\,(0.39 - 0.05\sqrt{e_a})\,(1 - 0.6C^2) + 4.58\,(10)^{-7}\,(273.16 + T_w)^3\,(T_w - T_a)$$

$$Q(E) = 3767\, C_D (0.98e_w - e_a)W$$

$$Q(C) = 4(T_w - T_a)W.$$

The heat exchange components are expressed in cal. $cm^{-2}\, day^{-1}$ and the symbols are:

- C , the cloudiness in tenths of sky covered;
- e_a , the vapor pressure of the air in millibars;
- e_w , the saturation vapor pressure over pure water at the sea-water temperature, in millibars;
- T_a , the temperature of the air in degrees Celsius;
- T_w , the temperature of the water in degrees Celsius;
- W , the wind speed in meters per second;
- Q_o , the radiation from sun and cloudless sky in calories per square centimeter per day;
- C_D , the nondimensional drag coefficient.

The values of e_a and e_w were computed from formulas given by List (1951: p. 366) and Murray (1967). The methods of computing Q_o and C_D are given below in the discussion for each formula. In the computation of Q(B), Q(E), (e_w), and Q(C), the sea surface temperature based on surface marine observations was reduced by 0.7° C. (Saur, 1963).

Although different workers agree about the meteorological properties that affect the heat exchange processes, the coefficients used in the empirical formulas vary. To allow comparisons of the results in this paper with those of other workers, each of the heat exchange processes and the choice of coefficient used here are discussed below.

Q(S), Radiation from Sun and Sky

Departures from the formulas used by Wyrtki (1966), Roden (1959), and Laevastu (1960, 1965) are based on direct pyranometer measurements of radiation from sun and sky during the cruises of the TWZO Pilot Study. It was possible to integrate the analog traces for clear sky and solid overcast conditions by means of a polar planimeter. The clear sky direct and diffuse radiation values for a transmission coefficient of 0.6 given in the Smithsonian tables (List, 1951: tables 132 and 136), when multiplied by 1.03, corresponded to the measured values. These results agree with the values given by Bolsenga (1964). The albedo factor, 0.95, when multiplied by 1.03 gives the coefficient, 0.98, used in the equation.

To facilitate the calculation of Q_o by computer, the harmonic analysis of the clear sky direct and diffuse radiation values of the Smithsonian tables gives

$$Q_o = A_o + A_1 \cos\Theta + B_1 \sin\Theta + A_2 \cos 2\Theta + B_2 \sin 2\Theta$$

where $\Theta = \frac{2\pi}{T}(t - 21)$, t is the time in days beginning with January 1, T the number of days in a year, and the A's and B's are coefficients in the harmonic series. Table 1 lists the coefficients for lat. 0°, 10°, 20°, 30°, and 40° N. Coefficients applicable for the computation of Q_o at intermediate latitudes were obtained by linear interpolation.

Expressions that have been used in the Pacific area for the cloud correction of the clear sky radiation range from linear to cubic functions of cloudiness: Tabata (1958) used the Ångström factor (1 - 0.71C). Roden (1959) used the Budyko factor (1 - kC) where k ranges from 0.65 at the Equator to 0.68 at lat. 35° N. Johnson, Flittner, and Cline (1965) and Wyrtki (1966) used the quadratic Beriland factor ($1 - aC - 0.38C^2$). (Johnson et al. listed for the coefficient "a" the values 0.38, 0.40, 0.39, 0.37, 0.35, 0.36, 0.38, corresponding to lat. 0°, 5°, 10°, 15°, 20°, 25°, 30°, and 35° N., respectively, and Wyrtki used "a" = 0.38.) Finally, Laevastu (1960, 1965) suggested the use of a cubic cloud factor ($1 - 0.6C^3$).

In this paper I use the Beriland expression. Qualitatively, the pyranometer records of the TWZO cruises indicate that a linear decrease of Q(S) with increasing cloudiness is too rapid and a cubic decrease is initially too slow. The coefficient "a" = 0.3 has been chosen for the Beriland expression and is based on pyranometer records for 21 days of solid overcast which gave an average cloud factor of 0.32. This factor compares with others for solid overcast as follows: Tabata 0.29, Roden 0.32 to 0.35, Wyrtki 0.24, Johnson et al. 0.22 to 0.27, and Laevastu 0.4.

Table 1.--Coefficients in the harmonic series for the computation of Q_o at lat. 0°, 10°, 20°, 30°, and 40° N.

Latitude north	A_0	A_1	B_1	A_2	B_2
0°	595.83	18.55	-4.97	-15.42	25.26
10°	589.42	-46.84	30.16	-17.08	28.15
20°	555.42	-112.46	66.72	-14.58	26.70
30°	507.50	-169.24	100.21	-10.83	20.21
40°	447.50	-218.56	126.76	-2.50	8.66

Q(B), Effective Back Radiation

The seasonal and spatial variations in effective back radiation are relatively small compared with those of the radiation received from sun and sky. Wyrtki (1966) calculated a range of 60 to 200 cal. cm.$^{-2}$ day^{-1} for the North Pacific; Tabata (1958) reported 85 to 130 cal. cm.$^{-2}$ day^{-1} off the British Columbia coast; Roden (1959) calculated 84 to 138 cal. cm.$^{-2}$ day^{-1} for the region off California and Baja California; and Seckel (1962) estimated 115 to 150 cal. cm.$^{-2}$ day^{-1} for the Hawaiian region.

During the TWZO cruises, the net long wave radiation was measured by means of a Suomi-Kuhn net radiometer (Charnell, 1967). These measurements indicate a range of 58 to 173 cal. cm.$^{-2}$ day^{-1}.

Roden (1959), Johnson et al. (1965), and Wyrtki (1966) used the Beriland expression for the computation of the effective back radiation in which the coefficient to correct for cloudiness ranges from 0.5 at the Equator to 0.65 at lat. 35° N. Charnell (1967) computed this coefficient for solid overcast conditions to be, on the average, 0.6. In this report I have used the Beriland expression for Q(B) with cloud coefficient 0.6 and have neglected the variation with latitude.

Q(E), the Heat of Evaporation

Together with the radiation from sun and sky, the heat used for evaporation is the most important term affecting the net heat exchange across the sea surface. In the expressions used by all of the workers cited above, the evaporation depends on the difference between the saturation vapor pressure over sea water at the sea surface temperature and the actual vapor pressure of the air above the sea surface (in this paper termed sea-air vapor pressure difference[1]), the wind speed, and a coefficient. The evaporation coefficient is affected by the wind speed and the stability of the air above the sea surface. The height above the sea surface at which psychrometric and wind measurements are made can also be important in the computation of evaporation, depending on the vertical gradients of humidity and wind speed near the height of measurement. Laevastu (1960) and Malkus (1962) have discussed the unresolved uncertainties concerning the choice of the coefficient.

The evaporation coefficient computed from the expression discussed by Malkus (1962) depends on the drag coefficient and varies with the wind speed from 3 (winds below 4 m. sec.$^{-1}$) to 9 (winds above 12 m. sec.$^{-1}$). Most workers use a constant coefficient for the computation of climatic averages of the evaporation. Wyrtki (1966) used a coefficient of 6 obtained from the Malkus formula, which corresponds to a wind speed of 8 m. sec.$^{-1}$ at 10 m. height. Tabata

[1]Subsequently in this paper the difference between the saturation vapor pressure over sea water at the sea surface temperature and the actual vapor pressure of the air above the sea surface is referred to as the sea-air vapor pressure difference.

(1958) and Johnson et al. (1965) used 4.7 for wind measurements at 20 m. height. The coefficient of Laevastu (1960) varies with wind speed but at 10 m. sec.$^{-1}$ the evaporation would be about the same as that computed by Wyrtki. Below this wind speed, values would be higher and above this speed they would be lower than Wyrtki's values. For a wind speed of 8 m. sec.$^{-1}$ measured at 10 m. above sea level, Roden's (1959) coefficient is also 6.

In this paper the formula suggested by Malkus has been used. In the trade wind zone it is reasonable to assume neutral stability at the usual height of marine wind measurements. The uncertainties in this height are therefore not critical, and the drag coefficient for neutral stability (Malkus, 1962: fig. 6, p. 110) can be used. Inspection of the wind summaries in table A and the smoothed values in table B show that the spatial and temporal variations in the wind speed generally lie in the range of 4 to 12 m. sec.$^{-1}$ Within this range the nondimensional drag coefficient changes rapidly. In the calculations of this paper the variable nature of the coefficient has therefore been taken into account.

The equation

$$C_D = \left[\frac{\arctan (W - 8)}{1.96} + 1.6 \right] 10^{-3}$$

approximates the curve for the drag coefficient, C_D, as a function of wind speed, W (in m. sec.$^{-1}$), under conditions of neutral stability given by Malkus, and facilitates the computation of the evaporation.

In the evaporation equation of this paper the saturation vapor pressure over pure water has been multiplied by 0.98 to account for the salt effect (Miyake, 1952). Also the computer program was written so that for negative sea-air vapor pressure differences, the computed heat of evaporation would be 0. This part of the computer program does not affect the results of table B since monthly mean values of the sea-air vapor pressure difference are always positive (see table A). The program, however, affects results based on evaporation rates computed for each set of meteorological observations.

Since fog is rarely reported except, possibly, in the northern region of the area considered in this paper (McDonald, 1938), minimum sea-air vapor pressure differences that are negative in table A are probably due to erroneous observations. The computer program, therefore, reduces the error if evaporation rates of individual sets of observations are summed. Where a negative sea-air temperature difference may actually have occurred, the computer program reflects the belief that the heat of condensation gained by the ocean is small (Roden, 1959).

Q(C), Conduction of Sensible Heat

The exchange of sensible heat across the sea surface is the smallest term in the net heat exchange across the sea surface. It is generally computed from the ratio of Q(C) to Q(E), the Bowen ratio, and depends upon the temperature difference between water and air and the wind speed. Wyrtki (1966) used the form suggested by Malkus (1962) with a conduction factor of 3.86. Johnson et al. (1965) used a factor of 3 and Roden (1959), 3.96. Laevastu's (1965) factor again varies with the wind speed but at 10 m. sec.$^{-1}$ it is essentially the same as that used by Wyrtki or Roden. When the sea-air temperature difference is negative, Laevastu used the same form as other workers with a factor of 3.

Here a factor of 4 is used and no change is made when the sea-air temperature difference becomes negative.

EVALUATION OF RESULTS

Uncertainties in the estimation of large-scale, sea-air interaction processes calculated in this paper are due to (1) inadequacies in the distribution and quality of the data, (2) the methods of processing which must be used because of inadequate spatial and temporal distribution of observations, and (3) uncertainties in the empirical formulas. The empirical formulas which are the subject of intensive research, and their uncertainties have been thoroughly treated in the literature cited here, and elsewhere. The evaluation is, therefore, concerned with the data inadequacies, effects of these inadequacies on the heat exchange results, and the effects on the results of the processing methods which must be used because of data inadequacies. Finally, comparisons with other results in the North Pacific and interseason and interyear comparisons are made.

Inadequacies in the Distribution and Quality of Data

Table A shows that south of lat. 15° N. the number of observations per month is small and that some 5° squares have no observations. For these latitudes the results presented in table B

must therefore be regarded with caution, except at lat. 2° N., long. 157° W. where daily observations from Christmas Island have been used.

North of lat. 15° N. sampling is more adequate, particularly from Hawaii northward, in the latitudes that contain the shipping lanes from North America to the Far East and to Hawaii. Reliable results in table B are those from lat. 17° N., long. 167° W., an area which contains the daily Johnston Island observations, and from lat. 32° N., long. 142° W., which, in addition to a large number of observations from merchant vessels, contains those from the U.S. Coast Guard Weather Station November.

Of the interpolated meteorological properties in table B, the cloudiness and the wind speed are most subject to error due to insufficient observations. The cloud cover may materially change during timespans of less than an hour and from day to day. A large number of observations is therefore necessary to provide a measure of the monthly cloudiness. Only in the latitudes north of Hawaii are the observations, on average, more frequent than once per day.

In the trade wind zone, similar wind speeds and directions have a greater persistence than the amount of cloud cover but may show relatively large variations in timespans of a few days. South of lat. 15° N. the interpolated winds and cloudiness of table B are heavily biased by the values obtained from a few monthly observations which, although they may be correctly measured, do not necessarily reflect the monthly mean value.

Despite the sparse data south of lat. 15° N., interpolated results of the smoothed charts are presented in table B. As a consequence large evaporation rates of more than 700 cal. cm^{-2} day^{-1} may appear as, for example, in the eastern portion of the region at lat. 2° N. during September and October 1963. These evaporation rates are due to relatively few observations with wind speeds of more than 10 m. sec^{-1} (see table A). The choice in the preparation of table B was either to leave the area in question blank or to present values based on the limited observations. The latter course was chosen since it draws attention to the high winds which may occur in this area and cause high evaporation rates.

Inadequacies in the quality of marine meteorological observations are well known. Visual inspection of the data used in this report again served to draw attention to the primary causes which reduce the quality of data. Because the quality can be so easily improved, the causes for the inadequacics and their effect on the heat exchange results are revicwed. Errors in the marine surface data are not so much due to incorrect reading of instruments and recording of observations as to improper placement and calibration of the instruments, improper techniques of measurement, and errors in data reduction at sea.

To illustrate--high values for the wet and dry bulb air temperatures indicate that the instruments were placed in a warm location aboard ship or that the psychrometric measurements were not made in air freshly flowing off the sea. It was previously stated that negative values in the minimum sea-air vapor pressure differences of table A are probably due to erroneous observations. Improper techniques in the psychrometric measurement are believed to be the primary cause. If the dry and wet bulb temperatures are not noted when the minimum wet bulb temperature is reached, an overestimate of the vapor pressure of the air results. Consequently, the sea-air vapor pressure difference will be too low and may be negative.

In an analysis of sea surface temperatures taken aboard merchant ships, Saur (1963) found that deviations from mean values were large and that the "injection temperatures," which are often used in marine weather observations, are measured in enginerooms and tend to be too high. The large temperature deviations, in terms of use in oceanography or meteorology, may be due to improper placement and calibration of engineroom thermometers. Saur suggested a correction of -0.7° C. for average sea-water temperatures obtained from the marine surface meteorological observations.

Errors in air and water temperatures affect primarily the sea-air vapor pressure difference and so the heat of evaporation. Overestimating the sea-water temperature by 0.7° C. would mean an overestimate of the saturation vapor pressure of water by 0.8 mb. at 15° C. and 1.6 mb. at 28° C. Errors of similar magnitude occur in the vapor pressure of the air owing to wrong psychrometric measurements. The sea-air vapor pressure differences of table A are generally below 10 mb. and often below 5 mb. The possible error in the heat of evaporation may therefore be relatively large.

Visual inspection of data also indicated that erroneous data reduction is the probable cause for wrong wind speeds and directions. For example, in areas with a large number of obser-

vations showing an easterly wind, an observation with a westerly wind may appear. A reversal in wind direction can easily occur in the vector addition of the measured apparent wind and the speed and direction of the ship. Incorrect vector addition also results in wrong wind speeds and directions which are not as readily detected as a 180° error in wind direction.

Effects of Data Inadequacies on the Heat Exchange Results

The effects of data inadequacies in the trade wind zone on the estimates of heat exchange processes are best illustrated by examples. Most critical are uncertainties in the cloudiness, since it affects the primary process in the net heat exchange across the sea surface, the heat of radiation from sun and sky.

The cloudiness (table B) shows remarkable consistency both in spatial and temporal distribution. This consistency may, however, be misleading. The average obtained from only a few cloud observations per month that range from clear sky to solid overcast quickly converges to a value representing a semiovercast condition. With at least daily observations, however, the monthly average may shift to a higher or lower value.

If an error of 0.1 is assumed for the cloudiness, the cloud factor would be in error from about 5 percent for low values in cloudiness to over 20 percent for high values in cloudiness. For example, at lat. 7° N., long. 142° W., July 1963, table B shows that C = 0.9 and Q(S) = 247 cal. cm^{-2} day^{-1}. An error of 0.1 in cloudiness would change the heat of radiation from sun and sky about 50 cal. cm^{-2} day^{-1}. A similar error at lat. 22° N., long. 157° W., July 1963 with C = 0.4 and Q(S) = 529 cal. cm^{-2} day^{-1} would produce a change of 30 to 40 cal. cm^{-2} day^{-1} in the heat of radiation from sun and sky.

The error in the monthly cloud estimate may be larger than 0.1, and other factors, such as the type and thickness of clouds, that have not been considered here may introduce errors of similar magnitude.

Values for the effective back radiation of table B show that they fall within the limits of observation during the TWZO cruises (Charnell, 1967) and are small compared with the magnitude of the radiation from sun and sky. The effect of variations in effective back radiation on the net heat exchange is also smaller than that of variations in the radiation from sun and sky.

Again, cloudiness enters into the effective back radiation, since the long wave radiation from the sky reduces the magnitude of the long wave radiation which escapes into space from the sea surface. An error of 0.1 in the cloudiness introduces a relative error in the cloud factor that ranges from 1 percent for low values of cloudiness to about 20 percent for high values of cloudiness. In terms of the results listed in table B, to use an extreme example, the effective back radiation at lat. 7° N., long. 142° W., July 1963, for a solid overcast would be 52 cal. cm^{-2} day^{-1} instead of 65 cal. cm^{-2} day^{-1} for 0.9 cloudiness.

In low latitudes the thickness of the humid, tropical air layer may be as important as the cloudiness. Charnell (1967) reported that the variations of long wave radiation measured during clear sky conditions were of the same magnitude as the differences between clear sky and overcast conditions. He pointed out that radiosonde data indicate variations of thickness of the tropical air mass of the order of 1,000 m. within a few days. Such variations in the thickness of the humid air layer may have an effect on the long wave radiation similar to that of a varying cloud cover. Although the factor containing the vapor pressure in the effective back radiation equation partially accounts for the humid air mass effect, in low latitudes the effect of variations in the thickness of the humid air mass should also be considered.

The conduction of sensible heat is a small quantity as compared with the other heat exchange processes. Uncertainties in this term due to the shortcomings of the meteorological observations have a negligible effect on the estimate of net heat exchange across the sea surface.

Since the heat of evaporation is a large quantity, errors in this process due to data uncertainties may seriously affect the net heat exchange results. The heat of evaporation depends on the sea-air vapor pressure difference and the nonlinear function of the wind speed when a variable drag coefficient is used. The effect on the former due to erroneous sea-water temperature or psychrometric measurements has already been considered. The latter is affected by the manner of processing the meteorological data.

Effects of Processing Techniques on the Heat Exchange Results

Ideally, if interest lies in the total of a heat exchange process for an area such as a 5° square about the Hawaiian Islands, for a month, an area integral should first be obtained for each day (or more frequently) and then be summed for the month. If interest is concerned with a process at a single location, values should be obtained for each day (or more frequently) at that location and then be summed for the month. With some exceptions, the spatial and temporal distribution of meteorological data has been inadequate to follow these processing procedures. It has therefore been necessary in the past as well as here, to estimate monthly mean values of the required meteorological properties for relatively large areas and then to compute the exchange processes.

This procedure involves the question of how large is the difference between the mean of the product and the product of mean values, since all the empirical heat exchange expressions are products of independently varying properties. Malkus (1962) discussed this problem and cited examples where the conduction of sensible heat and the heat of evaporation were computed by the two methods. The use of mean meteorological properties resulted in an underestimate of about 7 percent.

Table 2 lists for the three locations where daily observations are available--lat. 2° N., long. 157° W. (Christmas Island), lat. 16° N., long. 169° W. (Johnston Island), and lat. 30° N., long. 140° W. (Ocean Weather Station November)--for each month, the exchange processes as based on the values computed daily (subscripts 1), and those computed from mean monthly meteorological properties (subscripts 2). In general, for each of the sample locations, $Q(S_1)$ is smaller than $Q(S_2)$, $Q(B_1)$ is smaller than $Q(B_2)$, $Q(E_1)$ is larger than $Q(E_2)$, and $Q(C_1)$ is about the same as $Q(C_2)$. In consequence of these differences, $Q(N_1)$ would be smaller than $Q(N_2)$ due to $Q(S_1)$ and $Q(E_1)$ but larger due to $Q(B_1)$ and $Q(C_1)$. At Christmas Island the differences in the exchange processes are small both in absolute and in relative terms. At Johnston Island and Ocean Weather Station November, the differences (in the exchange processes) are about the same as at Christmas Island except for the heat of evaporation, which is significantly larger both in absolute and in relative terms. The month-to-month variation in the difference between $Q(E_1)$ and $Q(E_2)$ can also be relatively large. Values of $Q(C_1) - Q(C_2)$ are unimportant. The differences in each of the exchange processes due to the manner of computation are reflected in the 2-year mean values which are also tabulated.

It is evident from the tabulation that at Johnston Island and at Ocean Weather Station November the relatively large values of $Q(E_1) - Q(E_2)$ have a pronounced effect on the differences between $Q(N_1)$ and $Q(N_2)$. An important cause for the relatively large differences in the heat of evaporation is the use of a variable drag coefficient.

Consider the portion of the evaporation equation which depends on the wind speed, the heat of evaporation per unit difference in sea-air vapor pressure,

$$G(W) = 3.77\left[\frac{\arctan\,(W-8)}{1.96} + 1.6\right]W$$

$$\text{cal. cm.}^{-2}\ \text{day}^{-1}\ \text{mb.}^{-1}$$

It is apparent from figure 2, where G(W) is plotted as a function of wind speed, that the evaporation factor changes most rapidly between 6 and 10 m. sec.$^{-1}$ Below and above these speeds the change is about linear. Wind speeds in the trade wind zone generally fall within the range where the change of G(W) is nonlinear. One would therefore not expect the wind factor, $G(\overline{W})$, of the mean wind to be the same as the mean wind factor, $\overline{G(W)}$. For example, in Feb-

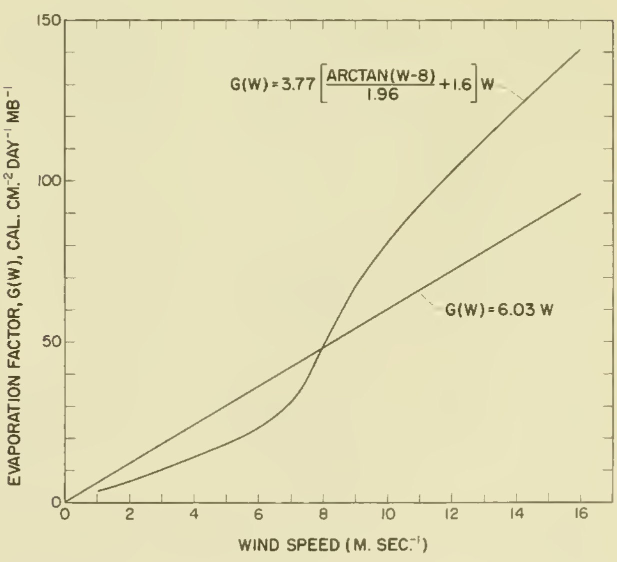

Figure 2.--The heat of evaporation per unit difference in sea-air vapor pressure as a function of the wind speed.

Table 2.--Heat exchange processes for each month, cal. cm.$^{-2}$ day^{-1}, July 1963 to June 1965, at Christmas Island, lat. 2° N., long. 157° W.; Johnston Island, lat. 16° N., long. 169° W.; and Ocean Weather Station November, lat. 30° N., long. 140° W. Subscripts 1, exchange processes computed daily; subscripts 2, exchange processes computed from mean monthly meteorological properties

	Year	Month	$Q(S_1)$	$Q(S_2)$	$Q(B_1)$	$Q(B_2)$	$Q(E_1)$	$Q(E_2)$	$Q(C_1)$	$Q(C_2)$	$Q(N_1)$	$Q(N_2)$
							Cal. cm.$^{-2}$day^{-1}					
Christmas Island												
	1963	July	409	421	88	93	69	67	-2	-3	250	264
	1963	Aug.	408	424	84	89	81	81	-6	-4	248	258
	1963	Sept.	452	471	84	90	83	83	-15	-13	299	311
	1963	Oct.	408	427	77	82	147	106	-16	-15	201	254
	1963	Nov.	382	395	80	84	89	88	-9	-9	221	232
	1963	Dec.	369	380	78	81	124	102	-10	-10	176	207
	1964	Jan.	357	368	74	78	81	78	-10	-8	212	220
	1964	Feb.	400	417	80	85	70	69	-8	-7	258	270
	1964	Mar.	378	397	68	74	50	44	-9	-10	273	289
	1964	Apr.	397	407	72	74	89	83	-19	-20	254	270
	1964	May	387	401	78	82	101	101	-22	-21	229	239
	1964	June	412	430	84	92	88	95	-19	-19	259	264
	1964	July	417	434								
	1964	Aug.	441	460	84	91	116	105	-30	-30	271	295
	1964	Sept.	436	463					-33	-33		
	1964	Oct.	455	478					-34	-32		
	1964	Nov.	431	452					-42	-41		
	1964	Dec.	426	444					-22	-22		
	1965	Jan.	430	457					-29	-25		
	1965	Feb.	468	494	85	93	73	72	-22	-20	331	349
	1965	Mar.	442	472	72	81	54	53	-19	-17	335	355
	1965	Apr.	438	460	72	78	50	47	-13	-13	330	348
	1965	May	392	413	63	69	38	39	-14	-13	302	318
	1965	June	372	392	74	81	56	55	-7	-5	254	261
	2-year average		413	432	78	83	81	76	-18	-17	261	278
Johnston Island												
	1963	July	382	399	73	76	141	123	-18	-18	174	218
	1963	Aug.	378	403	72	80	145	131	-13	-14	172	206
	1963	Sept.	420	434	93	94	178	153	-2	-1	136	188
	1963	Oct.	292	306	69	73	169	142	-6	-7	80	98
	1963	Nov.	321	329	95	100	210	168	5	6	6	55
	1963	Dec.	264	278	102	111	317	249	24	26	-191	-108
	1964	Jan.	305	312	101	106	398	390	0	1	-216	-185
	1964	Feb.	310	323	94	103	367	347	7	9	-191	-136
	1964	Mar.	387	402	107	115	233	192	12	15	35	80
	1964	Apr.	343	360	81	86	164	134	2	2	62	138
	1964	May	444	472	98	106	148	128	4	4	190	234
	1964	June	403	421	93	98	203	174	0	0	114	149
	1964	July	469	483	103	108	231	194	-5	-5	151	186
	1964	Aug.	347	371	82	90	232	204	3	4	19	73
	1964	Sept.	315	347	82	90	166	147	10	11	87	99
	1964	Oct.	389	416	107	116	201	185	15	16	41	99
	1964	Nov.	332	353	113	117	203	166	17	21	50	49
	1964	Dec.	320	333	118	126	174	143	17	22	-4	42
	1965	Jan.	292	306	126	134	229	166	28	29	-56	-23
	1965	Feb.	356	386	136	149	565	538	43	40	-357	-341
	1965	Mar.	434	450	132	137	256	184	16	15	62	114
	1965	Apr.	461	491	118	123	174	159	-3	-2	178	211
	1965	May	442	462	100	109	182	143	0	1	144	209
	1965	June	451	473	103	110	381	387	6	5	-50	-29
	2-year average		369	388	100	107	236	206	7	8	27	68

Table 2.--Heat exchange processes for each month, cal. cm.$^{-2}$day^{-1}, July 1963 to June 1965, at Christmas Island, lat. 2° N., long. 157° W.; Johnston Island, lat. 16° N., long. 169° W.; and Ocean Weather Station November, lat. 30° N., long. 140° W. Subscripts 1, exchange processes computed daily; subscripts 2, exchange processes computed from mean monthly meteorological properties--Continued

	Year	Month	$Q(S_1)$	$Q(S_2)$	$Q(B_1)$	$Q(B_2)$	$Q(E_1)$	$Q(E_2)$	$Q(C_1)$	$Q(C_2)$	$Q(N_1)$	$Q(N_2)$
							Cal. cm.$^{-2}$day^{-1}					
Ocean Weather Station November												
	1963	July	354	364	92	96	122	94	-2	-4	141	178
	1963	Aug.	387	408	104	110	94	81	-2	-3	191	220
	1963	Sept.	387	398	117	120	140	112	1	2	128	164
	1963	Oct.	304	314	132	136	177	137	20	18	-26	23
	1963	Nov.	191	198	118	122	135	124	20	19	-82	-67
	1963	Dec.	177	182	105	110	100	85	-5	-2	-23	-11
	1964	Jan.	167	169	108	112	190	132	11	11	-143	-86
	1964	Feb.	230	234	122	126	266	192	22	23	-180	-107
	1964	Mar.	230	235	98	102	248	207	13	16	-130	-90
	1964	Apr.	239	243	91	93	221	183	21	22	-95	-55
	1964	May	333	344	115	120	188	150	30	30	-1	44
	1964	June	345	360	96	101	114	94	7	6	128	159
	1964	July	338	348	91	94	110	94	0	0	136	160
	1964	Aug.	395	409	112	116	114	94	6	6	162	193
	1964	Sept.	315	328	107	111	190	163	3	3	14	51
	1964	Oct.	284	296	113	117	155	106	1	3	13	71
	1964	Nov.	202	209	116	120	227	152	11	10	-153	-73
	1964	Dec.	173	177	98	102	66	64	-14	-9	22	20
	1965	Jan.	182	185	100	105	133	91	-6	-5	-44	-6
	1965	Feb.	195	204	92	96	252	213	2	0	-151	-105
	1965	Mar.	258	267	103	106	205	128	10	9	-61	24
	1965	Apr.	316	326	100	104	161	134	-3	-2	57	90
	1965	May	306	329	97	106	165	122	12	14	36	87
	1965	June	407	421	115	120	157	118	8	8	125	175
	2-year average		280	290	106	110	164	128	7	7	3	44

ruary 1964, at lat. 30° N., long. 140° W., $Q(E_1)$ = 266 cal. cm.$^{-2}$day^{-1} and $Q(E_2)$ = 192 cal. cm.$^{-2}$ day^{-1}. The evaporation computed from mean monthly meteorological properties was 28 percent below that computed daily. The mean wind speed for this month was 6.4 m. sec.$^{-1}$ giving G(6.4) = 26 cal. cm.$^{-2}$day^{-1}mb.$^{-1}$ The average daily value of G(W) was 38.3 cal. cm.$^{-2}$day^{-1}mb.$^{-1}$ Here G(6.4) was 32 percent below $\overline{G(W)}$. Because of the nonlinearity of G(W), a changing frequency distribution of wind speeds from month to month would contribute to the changing differences between $Q(E_1)$ and $Q(E_2)$ in the above listing for the three locations.

The differences between $Q(E_1)$ and $Q(E_2)$ at Christmas Island are small because winds are generally below 6 m. sec.$^{-1}$, so that they fall in the approximately linear portion of G(W) (fig.2).

The discussion concerning the effect of temporal changes in wind speed on the mean value of G(W) applies also to spatial changes in wind speed. It can be shown, however, that the effect of wind gradients of the magnitude occurring in the trade wind zone on the area mean of G(W) is small.

The dependence of the computed heat of evaporation on the method of processing can be demonstrated further for the 5° square lat. 25° to 29° N., long. 140° to 144° W., where the number of observations were 164 to 225 per month. Three methods of computations were used: (1) the heat of evaporation was computed for each set of meteorological data and the daily mean value of the heat of evaporation was then used to obtain the monthly average, which is designated $\overline{Q(E)}$; (2) mean daily meteorological properties for the 5° square were used to compute the daily heat of evaporation from which the monthly means were then obtained--these values are equivalent to those in the above listing of the three locations which were designated $Q(E_1)$; (3) from the daily mean values for the 5° square the monthly mean meteorological properties were computed which, in turn, were used to ob-

tain the monthly heat of evaporation--these values are equivalent to $Q(E_2)$ of the above listing. The results of the three methods of computation are presented in figure 3.

In method 1, if for each day the meteorological observations were uniformly distributed in the 5° square, $\overline{Q(E)}$ would represent the mean monthly evaporation for the area. In methods 2 and 3, $Q(E_1)$ and $Q(E_2)$ represent the results for the mean location of observations. Since the heat exchange processes in table B are based on the interpolated, mean meteorological properties, they, too, represent values at the locations listed rather than for the 5° square.

For the 24 months, the differences between $\overline{Q(E)}$ and $Q(E_1)$ range from 2 to 32 cal. cm.$^{-2}$ day^{-1} and average 17 cal. cm.$^{-2}$ day^{-1}. The differences between $Q(E_1)$ and $Q(E_2)$ range from -56 to 69 cal. cm.$^{-2}$ day^{-1} and average 35 cal. cm.$^{-2}$ day^{-1}. The average difference between $\overline{Q(E)}$ and $Q(E_1)$ is less than 7 percent, about as reported by Malkus (1962), and reflects the effects of variability in the data. The differences between $Q(E_1)$ and $Q(E_2)$ are about the same as those for the computations at Johnston Island and Weather Station November, listed above.

Figure 3 shows that in all months $Q(E_2)$ is the lowest value except for December 1964, when it was 10 cal. cm.$^{-2}$ day^{-1} above $Q(E_1)$, and February 1965, when it was 56 cal. cm.$^{-2}$ day^{-1} above $Q(E_1)$. The large deviation in $Q(E_1) - Q(E_2)$ during February 1965 from the common occurrence illustrates that fluctuations in the evaporation are not only due to the variable wind factor, G(W), but also due to changes in the sea-air vapor pressure difference. Daily values showed that meteorological conditions departed from those commonly observed in this 5° square. During February 1965, a relatively high frequency of winds above 10 m. sec.$^{-1}$ corresponded with low values of the sea-air vapor pressure difference. The winds below 10 m. sec.$^{-1}$ corresponded with higher sea-air vapor pressure differences. In consequence, the mean monthly meteorological properties yielded a higher evaporation rate than the mean daily evaporation rates. The departure in meteorological conditions for this month is apparent from the data summaries in table A (lat. 25°-29° N., long. 140°-144° W.). Relatively strong southeasterly winds with a lower sea-air vapor pressure difference contrasted with northeast-

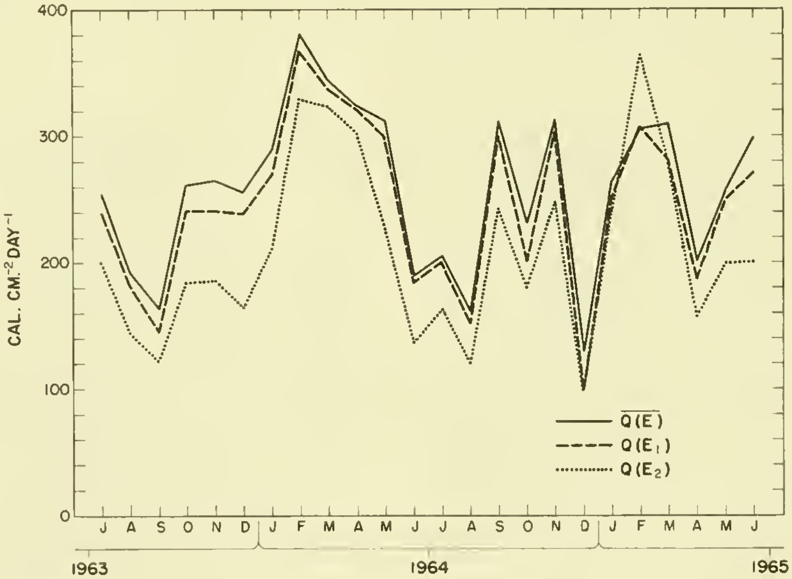

Figure 3.--Monthly heat of evaporation, cal. cm.$^{-2}$day^{-1}, lat. 25° to 29° N., long. 140° to 144° W., July 1963 to June 1965, $\overline{Q(E)}$, mean heat of evaporation based on computations made for each set of meteorological observations, $Q(E_1)$, mean heat of evaporation based on daily mean meteorological properties, and $Q(E_2)$, mean heat of evaporation based on monthly mean meteorological properties.

erly or easterly winds of lower speed and with a higher sea-air vapor pressure difference as, for example, during February 1964.

A relative difference in the heat of evaporation, possibly 20 percent, due to the difference in processing methods can cause a much larger relative error in the net heat exchange, whose absolute value ranges from 0 to 200 cal. cm^{-2} day^{-1}. This effect is apparent in figure 4, where the net heat exchange across the sea surface has been plotted by using the three methods of computation described for the heat of evaporation, in the area lat. 25° to 29° N., long. 140° to 144° W. The 2-year average of $Q(N_1)$ is -32 cal. cm^{-2} day^{-1} and that of $Q(N_2)$ is 7 cal. $cm^{-2} day^{-1}$. In the trade wind zone such differences in the ocean heat budget are significant.

Comparison with Other Results in the North Pacific

It remains to compare the results of table B with other heat exchange values for the North Pacific. Most suitable for comparison are the monthly charts of the heat of evaporation and the net heat exchange across the sea surface prepared by Wyrtki (1966). His charts are based on 1947 to 1960 averages of marine surface meteorological data. He calculated the heat exchange processes with the same empirical formulas as were used here except for minor differences in the coefficients and for his use of constant drag coefficient in the evaporation equation. The comparison, therefore, primarily shows the differences between the monthly exchange processes of individual years and those

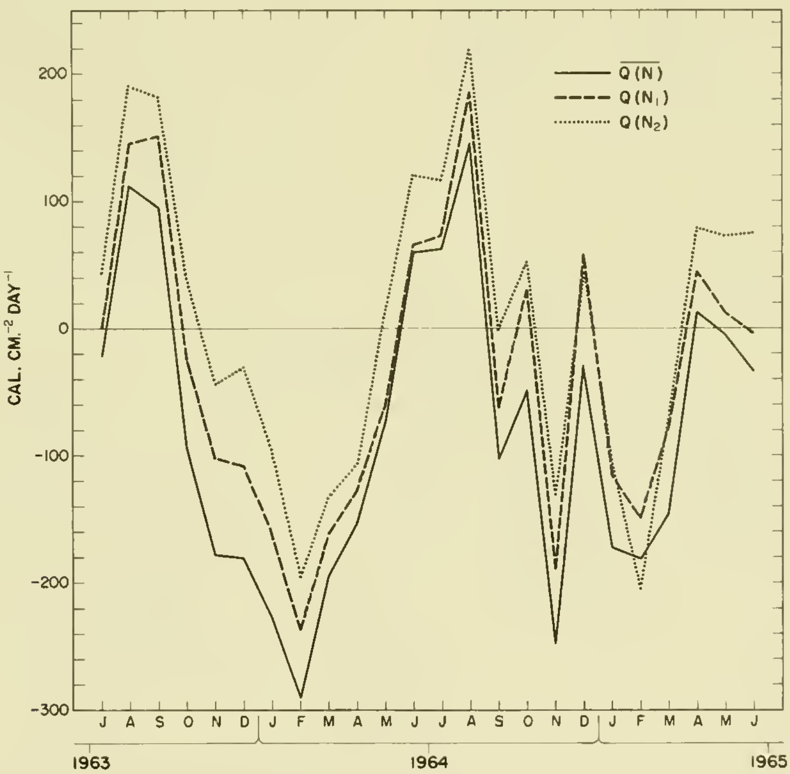

Figure 4.--Monthly net heat exchange across the sea surface (cal. $cm.^{-2} day^{-1}$) lat. 25° to 29° N., long. 140° to 144° W., July 1963 to June 1965. $\overline{Q(N)}$, mean net heat exchange based on computations made for each set of meteorological observations, $Q(N_1)$, mean net heat exchange based on daily mean meteorological properties, and $Q(N_2)$, mean net heat exchange based on monthly mean meteorological properties.

based on long-term mean meteorological data. Differences resulting from the use of a constant instead of a variable drag coefficient in the evaporation equation also become apparent.

Results from two locations were chosen for comparisons: (1) lat. 17° N., long. 152° W., in the trade wind region, (2) lat. 2° N., long. 157° W., in the equatorial region. The heat of evaporation and the net heat exchange across the sea surface from the trade wind region are shown in figure 5 and those from the equatorial region are shown in figure 6.

In the trade wind zone (fig. 5), the large fluctuations in Q(E), which change from year to year, make it difficult to discern a seasonal trend. A seasonal trend in the variation of Q(N), however, is not obscured even though the effects of the large fluctuations of Q(E) are apparent. The relatively large amplitude in the seasonal cycle of Q(S) must, therefore, be a dominant factor in the net heat exchange across the sea surface at lat. 17° N.

In view of the large variability in the heat of evaporation, the month-to-month trend of Wyrtki's Q(E) values is not expected to correspond with those during either of the 2 years from 1963 to 1965. As was true for the results of table B, Wyrtki's Q(E) fluctuations do not obscure the seasonal trend of Q(N).

Comparison of Q(E) and Q(N) averages shows good agreement. The 1963 to 1965 average Q(E) is about 260 cal. $cm^{-2} day^{-1}$ and Wyrtki's annual average Q(E) is about 270 cal. $cm^{-2} day^{-1}$. Similar mean values of Q(N) are about 30 cal. $cm^{-2} day^{-1}$ and 50 cal. $cm^{-2} day^{-1}$, respectively.

In the equatorial example (fig. 6), fluctuations in Q(E) during 1963 to 1965 are less pronounced than in the trade wind zone and a seasonal trend is apparent; evaporation is high during summer and autumn and low during winter and spring. Year-to-year changes in Q(N), however, are larger than expected from the differences in Q(E), particularly from November to February. In the equatorial region the amplitude of the seasonal variations in the clear sky radiation, Q_o, is relatively small so that year-to-year differences in cloudiness must play an important role in the net heat exchange across the sea surface. This variability in Q(S) also obscures the seasonal trend of the heat of evaporation in Q(N).

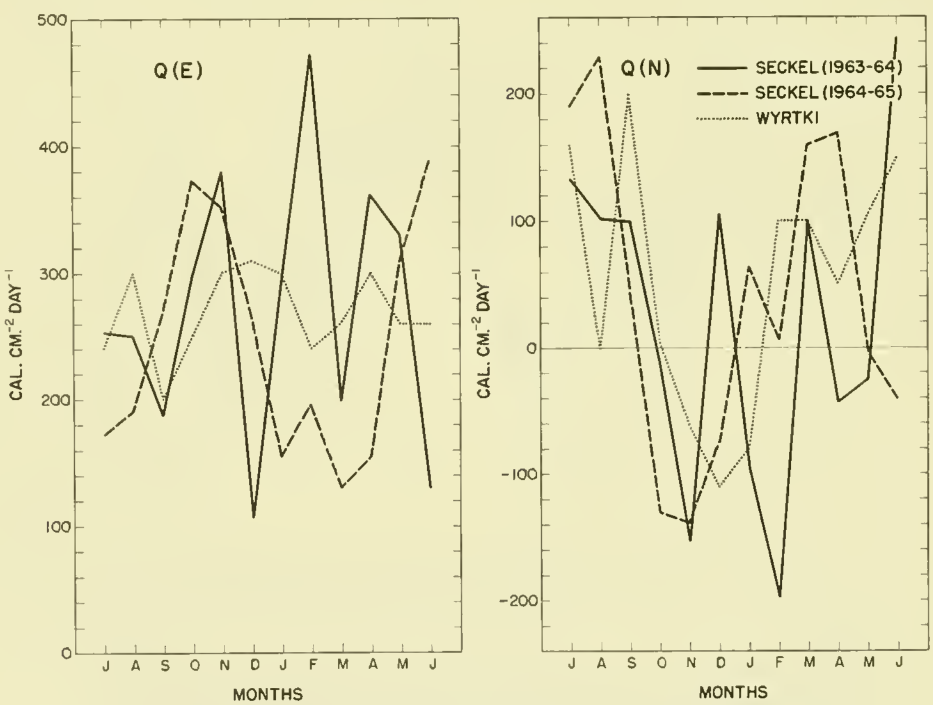

Figure 5.--The heat of evaporation, Q(E), and the net heat exchange across the sea surface, Q(N), at lat. 17° N., long. 152° W., July 1963 to June 1965 (from table B), and interpolated values from climatic charts by Wyrtki (1966).

The seasonal trend in Wyrtki's Q(E) values is consistent with those during 1963 to 1965. Again, in view of the variability in Q(N) near the Equator during 1963 to 1965, the trend of Wyrtki's month-to-month values of Q(N) is not expected to be similar to either of the 2 years.

In contrast to the good agreement in average values of Q(E) and Q(N) in the trade wind zone, those in the equatorial region differ considerably. The 1963 to 1965 average Q(E) is about 100 cal. cm^{-2} day^{-1}, whereas Wyrtki's annual average Q(E) is about 200 cal. cm^{-2} day^{-1}. Similar mean values of Q(N) are about 240 cal. cm^{-2} day^{-1} and 160 cal. cm^{-2} day^{-1}, respectively. The difference in Q(E) is primarily due to the use of different drag coefficients in the evaporation equation. The average wind speed at lat. 2° N., long. 157° W., July 1963 to June 1965 (table B) was 4.7 m. sec^{-1} for which the drag coefficient is 0.96×10^{-3}. Wyrtki used a constant drag coefficient, $C_D = 1.55 \times 10^{-3}$. Thus, the difference in drag coefficients accounts for the major portion of the difference in the evaporation rates and therefore also in the difference of the net heat exchange across the sea surface.

Within the limitation discussed above, the results for the two sample areas show that the heat exchange processes computed here are consistent with those based on long-term average data presented by Wyrtki.

Interseason and Interyear Comparisons

In a previous section it was shown that the manner of processing affects mainly the heat of evaporation and, therefore, also the results for the net heat exchange across the sea surface. Figures 3 and 4 show that, regardless of the manner of computation, the month-to-month trends in the heat of evaporation and the net heat exchange across the sea surface are similar. Here, then, the importance of absolute magnitudes in interseason and interyear comparisons is examined.

Results for the area, lat. 25° to 29° N., long. 140° to 144° W., which were previously used, are also used to compute the differences between principal extremum values of $Q(E_1)$ and $Q(E_2)$--see figure 3--and $Q(N_1)$ and $Q(N_2)$ (fig. 4). These differences, listed in table 3, show that the trends of change (increasing or decreasing) are the same whether the exchange processes are based on daily or mean monthly meteorological properties. The magnitudes of change are also similar but agreement tends to be better in spring and summer than during autumn and winter.

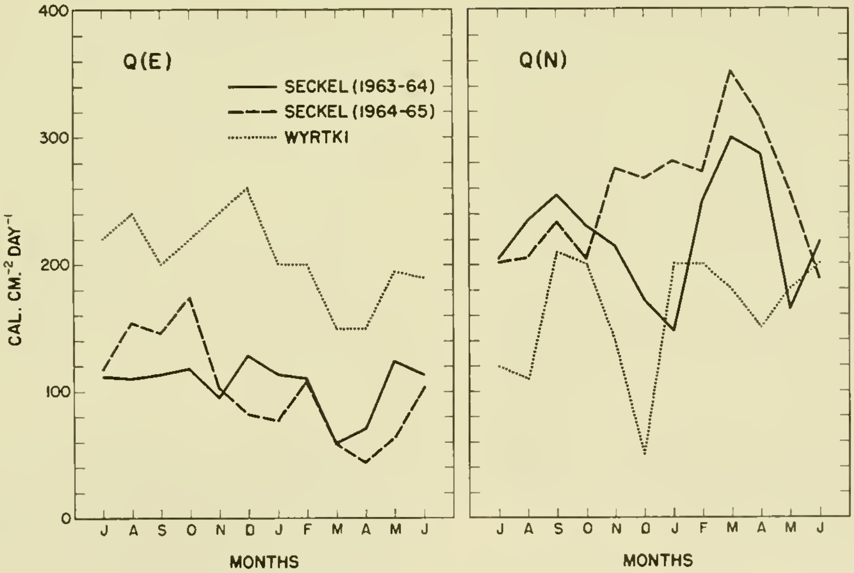

Figure 6.--The heat of evaporation, Q(E), and the net heat exchange across the sea surface, Q(N), at lat. 2° N., long. 157° W., July 1963 to June 1965 (from table B), and interpolated values from climatic charts by Wyrtki (1966).

Table 3.--Differences in extremum values of $Q(E_1)$, $Q(E_2)$, $Q(N_1)$, and $Q(N_2)$, lat. 25° to 29° N., long. 140° to 144° W.

Time period	$Q(E_1)$	$Q(E_2)$
	Cal. cm.$^{-2}$day^{-1}	Cal. cm.$^{-2}$day^{-1}
Sept.-Nov. 1963	95	62
Nov.-Dec. 1963	-3	-19
Dec. 1963-Feb. 1964	129	163
Feb.-June 1964	-183	-191
June-July 1964	17	24
July-Aug. 1964	-49	-40
Aug.-Sept. 1964	148	121
Sept.-Oct. 1964	-98	-63
Oct.-Nov. 1964	100	67
Nov.-Dec. 1964	-203	-138
Dec. 1964-Feb. 1965	207	253
Feb. 1965-Apr. 1965	-119	-205
	$Q(N_1)$	$Q(N_2)$
	Cal. cm.$^{-2}$day^{-1}	Cal. cm.$^{-2}$day^{-1}
Aug. 1963-Feb. 1964	-380	-385
Feb.-Aug. 1964	420	414
Aug.-Sept. 1964	-246	-220
Sept.-Oct. 1964	92	54
Oct.-Nov. 1964	-218	-182
Nov.-Dec. 1964	246	173
Dec. 1964-Jan. 1965	-205	-246
Feb.-Apr. 1965	191	282

Table 4. Interyear comparisons of 4-month averages of $Q(E_1)$ and $Q(E_2)$, lat. 25° to 29° N., long. 140° to 144° W.

Time period	$Q(E_1)$	$Q(E_2)$
	Cal. cm.$^{-2}$day^{-1}	Cal. cm.$^{-2}$day^{-1}
Aug.-Nov. 1963 average	200	158
Aug.-Nov. 1964 average	237	196
Interyear difference	37	38
Jan.-Apr. 1964 average	321	287
Jan.-Apr. 1965 average	254	257
Interyear difference	-67	-30

Table 5.--Interyear comparisons of 3-month averages of $Q(N_1)$ and $Q(N_2)$, lat. 25° to 29° N., long. 140° to 144° W.

Time period	$Q(N_1)$	$Q(N_2)$
	Cal. cm.$^{-2}$day^{-1}	Cal. cm.$^{-2}$day^{-1}
July-Sept. 1963 average	98	136
July-Sept. 1964 average	67	113
Interyear difference	-31	-23
Jan.-May. 1964 average	-183	-139
Jan.-Mar. 1965 average	-111	-123
Interyear difference	·72	16

For month-to-month differences of $Q(E_1)$ and $Q(E_2)$ the averages of the absolute magnitudes are 96 cal. cm.$^{-2}$ day^{-1} and 84 cal. cm.$^{-2}$day^{-1}, respectively, and for $Q(N_1)$ and $Q(N_2)$ 66 cal. cm.$^{-2}$ day^{-1} and 64 cal. cm.$^{-2}$ day^{-1}, respectively.

For interyear comparisons of similar seasons figure 3 shows that the maximum evaporation period was longer during the first part of 1964 than during the first part of 1965 and that the differences were marked in the summer and autumn evaporation of 1963 and 1964. Table 4 shows 4-month averages of $Q(E_1)$ and $Q(E_2)$ at lat. 25° to 29° N., long. 140° to 144° W., for August to November and January to April.

Figure 4 shows that values of the net heat exchange across the sea surface are highest during late summer and early autumn and lowest during winter. For interyear comparisons, 3-month averages of $Q(N_1)$ and $Q(N_2)$ (lat. 25° to 29° N., long. 140° to 144° W.) are listed in table 5.

The trend of change is the same, but interyear differences based on results computed daily are larger than differences based on results computed from monthly mean meteorological properties. When the interyear differences are compared, it should be remembered that those for Q(E) are not expected to be the same as those for Q(N) since in the latter the interyear differences of Q(S) and Q(B) are also involved.

Generalizing the results of these comparisons, a tendency exists to underestimate the interyear differences of the heat of evaporation and of the net heat exchange across the sea surface presented in table B. The underestimates will be largest in areas and at times of greatest variability in the meteorological properties that affect the heat exchange processes.

The use of table B for interyear comparisons is illustrated below for three sample areas, each of which lies in a different climatic zone. The trade wind zone extends over the largest portion of the region under consideration here. This region, however, also extends into two other climatic zones. The northern portion of the region lies near the North Pacific pressure ridge and generally has low wind speeds but, during the winter, may come under the influence of the Northwest Pacific atmospheric circulation. The southern portion of the region lies in the equatorial zone.

Consider first the northern zone. The absolute magnitude of interyear differences of Q(E) and Q(N) at lat. 32° N., long. 167° W. in table B

from April to November are relatively low and average 28 cal. cm^{-2} day^{-1} and 56 cal. $cm^{-2} day^{-1}$, respectively. From December to March these interyear differences, however, are an order of magnitude larger (table 6).

Consider next lat. 17° N., long. 152° W. (table B) in the trade wind zone, where the variations of Q(E) are large and where the most pronounced interyear differences occur during January to April (fig. 5). Table 7 lists average values of Q(E) and Q(N) for the 4 months January to April.

Finally, in the equatorial zone, lat. 2° N., long. 157° W. (table B, fig. 6), interyear differences are primarily reflected by the net heat exchange across the sea surface. From November 1964 to May 1965, Q(N) was larger than during the same months 1 year earlier. Table 8 lists average values of Q(E) and Q(N) for the 4 months November to February, the period of largest interyear difference in Q(N).

The illustrations based on the results of table B show that interyear differences of Q(E) and Q(N) during the 2-year period under consideration were larger than the variations to be expected from the data uncertainties discussed earlier in this paper. Furthermore, the interyear differences in the northern zone and in the trade wind zone are probably underestimated.

The interyear differences in the northern zone and in the trade wind zone are also consistent with the monthly mean sea-level pressure distributions (Northern Hemisphere charts of mean sea-level atmospheric pressure, Extended Forecast Division, National Meteorological Center, Environmental Science Services Administration). During the winter and spring of 1964, the trade winds were well developed and contributed to the large evaporation rates in the trade wind zone. During the winter of 1965 the trade winds were weak and the northern zone came under the influence of the Northwest Pacific circulation. In consequence evaporation rates were high in the northern zone but low in the trade wind zone.

Table 6.--Interyear differences of Q(E) and Q(N), lat. 32° N., long. 167° W. (from table B)

Time period	Q(E)	Q(N)
	Cal. $cm.^{-2}day^{-1}$	Cal. $cm.^{-2}day^{-1}$
Dec. 1963	568	-638
Dec. 1964	351	-354
Interyear difference	-217	284
Jan.-Mar. 1964 average	104	49
Jan.-Mar. 1965 average	273	-206
Interyear difference	169	-255

Table 7.--Interyear differences of Q(E) and Q(N), lat. 17° N., long. 152° W. (from table B)

Time period	Q(E)	Q(N)
	Cal. $cm.^{-2}day^{-1}$	Cal. $cm.^{-2}day^{-1}$
Jan.-Apr. 1964 average	441	-44
Jan.-Apr. 1965 average	134	100
Interyear difference	-307	144

Table 8.--Interyear differences of Q(E) and Q(N), lat. 2° N., long. 157° W. (from table B)

Time period	Q(E)	Q(N)
	Cal. $cm.^{-2}day^{-1}$	Cal. $cm.^{-2}day^{-1}$
Nov. 1963 to Feb. 1964 average	112	195
Nov. 1964 to Feb. 1965 average	93	274
Interyear difference	-19	79

CONCLUSION

Despite the limitations of the marine surface meteorological data, meaningful measures of the month-to-month and year-to-year changes in the large-scale heat exchange processes have been obtained for a large portion of the North Pacific trade wind region. The results presented in table B, therefore, satisfy the needs of the TWZO investigation.

Beyond this application, the need for monthly measures of large-scale, sea-air interaction processes in the trade wind zone will continue and increase; the experience gained in the preparation of this paper may be of help in future work. Some suggestions to facilitate the calculations and improve the results are therefore made.

The mechanics of processing large quantities of meteorological and oceanographic observations for the computation of sea-air interaction processes are still in the developmental stages. In the work reported here, quality control procedures involved laborious visual inspection of original data. Obvious errors that were initially overlooked could usually be corrected during the preparation of the smoothed charts. By using the statistics of table A, it is now possible

to impose limits so that for a second pass of the data through the computer, programs can be written to reject erroneous data.

A more sophisticated use of computers to summarize oceanographic and meteorological data was suggested by Frye (1968), who reported a regression analysis of sea-surface-temperature patterns for the North Pacific Ocean. For limited areas of the ocean, such as the trade wind region, it may in the future be possible to develop suitable models so that the distribution of properties can be expressed as functions of latitude, longitude, and time.

In the previous section the effect of shortcomings in the distribution and quality of data on the heat exchange values was illustrated. A most difficult distribution to estimate from isolated ships' observations is the cloudiness. This property affects the most important term in the heat budget, the radiation from sun and sky. In this area of uncertainty greatest improvement may come from satellite observations of the cloud cover. It may also be possible to compute the effective back radiation from direct satellite measurements.

The mainstay of data for the computations of large-scale, sea-air interactions will, nevertheless, remain the synoptic observations made by ships at sea. It was shown that the inability to compute the heat of evaporation daily may lead to relatively large underestimates of this important process. In a large portion of the trade wind zone, observations are sufficiently frequent to permit daily computation of the heat of evaporation. In critical areas of the low latitudes, however (see table A), the sampling frequency should be increased; this may be accomplished by an effort to enlist in the synoptic weather observations program the cooperation of all ships which travel through these areas.

Since ships' observations will continue to provide the largest number of data for the computation of sea-air interaction processes, an effort should be made to improve the quality of data. Most important are the sea surface temperature, psychrometric, and wind measurements. These observations can be materially improved by the calibration of instruments, particularly those for the measurement of the sea surface temperature. The observations can also be improved by proper location of instruments and by instruction of observers in proper techniques of measurement.

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APPENDIX TABLE A

Observed meteorological properties, lat. 0° to 35° N., long. 130° to 170° W., summarized by 5° square units of area and by months, July 1963 to June 1965

List of notations

T(A)	Air temperature, degrees Celsius.
T(W)	Sea surface temperature, degrees Celsius.
E(W)	Saturation vapor pressure over pure water at sea surface temperature, millibars.
E(A)	Vapor pressure of air, millibars.
C	Cloudiness, proportion of sky covered.
P	Atmospheric pressure, millibars minus 1,000.
W	Wind speed, meters per second.
W(X)	East-west component of wind velocity, meters per second; wind from the east is negative.
W(Y)	North-south component of wind velocity, meters per second; wind from the north is negative.

Example

Sample column for July 1963, lat. 30° to 35° N., long. 170° to 165° W.

	170	165	
T(A)	4	2	Mean location of observations: 30 + 4 = 34° N. lat., 165 + 2 = 167° W. long.
	23.5		Mean value of observations.
	27.5		Highest value.
	18.0		Lowest value.
	2.0		Standard deviation.
	28		Number of observations.

This example applies to the tabulations of all properties except that in the columns for W(X) and W(Y) the number of observations is not repeated from the column for W.

JULY 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	23.5	23.0	21.8	21.1	20.2	20.2	19.6	18.8
	27.6	27.0	24.2	26.0	24.2	23.7	23.7	23.1
	18.0	20.0	19.0	18.1	17.0	17.0	17.0	16.0
	2.0	1.5	1.2	1.5	1.2	1.6	1.2	1.2
	28	31	27	37	38	45	132	249
T(W)-T(A)	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	0.2	0.5	0.4	0.7	1.5	0.7	0.9	0.5
	5.5	4.6	2.7	3.3	3.8	3.8	3.8	4.5
	3.3-	3.0-	2.6-	3.2-	1.5-	3.2-	4.5-	4.1-
	2.0	1.6	1.3	1.3	1.1	1.5	1.3	1.5
	28	30	26	36	36	43	130	244
E(W)-E(A)	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	4.3	5.5	5.0	4.8	5.5	4.3	4.7	4.2
	11.3	13.7	10.0	9.5	10.0	9.6	11.8	11.5
	0.3-	1.5-	2.6-	0.9	0.7	0.3	1.5-	1.2-
	2.7	3.3	2.5	2.0	2.1	2.0	2.3	2.0
	28	29	25	35	35	41	130	242
EA	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	23.1	21.6	20.5	19.7	18.6	18.8	18.0	16.8
	26.6	27.1	27.6	23.6	22.3	25.5	26.5	21.6
	15.0	16.7	15.6	13.8	14.5	13.5	13.0	11.0
	2.6	2.6	2.5	2.2	1.5	2.0	2.1	1.6
	28	29	25	35	35	41	130	242
C	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.1	0.4	0.1	0.0	0.0
	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3
	28	32	28	38	37	42	131	246
P	4 2	3 3	3 3	2 3	2 3	3 3	2 3	4 2
	24.1	25.6	25.8	26.7	25.3	24.0	23.3	22.0
	31.0	32.0	31.0	31.6	29.6	29.6	28.6	28.0
	14.0	18.0	2.7	23.0	15.7	15.3	2.6	16.1
	4.6	3.5	5.0	1.7	2.5	3.1	2.7	2.1
	28	30	26	33	34	43	129	235
W	4 2	3 3	3 3	3 3	2 3	3 3	2 3	4 2
	6.3	6.8	5.8	6.0	6.5	6.0	6.7	6.3
	11.2	11.2	9.2	10.7	12.3	12.3	12.8	18.0
	0.0	0.0	1.5	2.0	2.5	1.0	0.0	0.0
	3.0	3.0	2.1	2.1	2.5	2.7	2.6	3.1
	29	32	28	38	38	45	127	245
W(X)	4.5-	4.5-	4.7-	5.3-	4.8-	3.0-	2.5-	1.5-
	1.5	7.1	4.8	1.5-	3.2	6.1	8.1	10.2
	10.1-	11.2-	9.2-	10.7-	12.1-	12.3-	11.0-	11.5-
	3.5	3.7	2.7	2.3	3.6	5.0	4.5	4.0
W(Y)	1.6	2.0	0.8-	1.5-	2.0-	2.0-	4.1-	4.6-
	11.2	10.6	5.0	3.2	4.0	2.0	2.5	4.1
	5.2-	7.0-	6.6-	6.3-	8.6-	7.3-	9.6-	13.8-
	3.8	4.1	2.8	2.1	2.7	2.0	2.7	3.2

AUGUST 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	4 3	3 3	3 3	2 3	4 2
	23.6	23.3	23.0	22.5	21.8	21.6	21.1	20.1
	26.5	27.6	28.0	25.5	24.5	25.5	27.0	25.5
	21.0	21.0	18.1	20.0	19.2	19.2	18.0	12.0
	1.1	1.3	2.0	1.1	1.2	1.3	1.3	1.5
	48	46	46	40	31	46	124	200
T(W)-T(A)	3 2	3 3	3 3	4 3	3 3	3 3	2 3	4 2
	1.0	1.0	0.8	1.0	0.8	0.6	0.7	0.4
	3.8	4.0	4.5	4.0	3.3	3.8	4.0	4.8
	2.1-	3.8-	3.0-	1.1-	1.6-	2.2-	5.0-	5.0-
	1.1	1.6	1.6	1.3	1.2	1.3	1.3	1.3
	48	46	46	39	31	46	123	199
E(W)-E(A)	3 3	3 3	3 3	4 3	3 3	3 3	2 3	4 2
	5.8	4.7	3.5	4.5	5.2	4.2	5.2	3.6
	15.8	12.1	11.1	10.2	11.0	9.5	10.7	12.5
	0.8-	1.2-	7.5-	0.2	0.8-	1.5-	3.5-	7.8-
	3.0	3.3	3.2	2.6	2.5	2.6	2.2	2.3
	46	42	44	36	29	43	120	197
EA	3 3	3 3	3 3	4 3	3 3	3 3	2 3	4 2
	23.5	23.8	24.0	22.7	20.5	20.8	19.2	19.0
	29.8	29.0	32.5	26.8	25.1	28.2	28.2	27.0
	15.6	18.5	18.0	17.3	16.5	15.5	14.1	9.3
	2.5	2.6	3.0	2.1	2.2	2.8	2.2	2.3
	46	42	44	36	29	43	120	197
C	3 2	3 3	3 3	4 3	3 3	3 2	2 3	4 2
	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	49	43	46	38	31	48	121	198
P	3 2	3 3	3 3	4 3	3 3	3 2	2 3	4 2
	18.1	18.6	21.1	22.8	24.2	23.0	23.2	22.3
	29.6	28.2	27.6	29.5	30.0	29.5	30.0	28.2
	8.6	6.2	13.5	19.1	19.5	3.5	16.8	17.1
	5.0	4.6	3.2	2.2	2.5	4.2	2.6	2.6
	44	40	39	37	30	43	117	193
W	3 2	3 3	3 3	3 3	3 3	3 2	2 3	4 2
	5.8	7.3	7.5	6.0	5.3	4.5	5.0	5.0
	20.5	23.1	17.5	15.3	11.7	10.2	12.8	12.8
	0.0	1.0	0.0	1.0	0.5	0.0	0.0	0.0
	3.8	4.5	3.7	3.0	3.2	2.6	2.5	2.2
	46	44	41	37	27	45	113	194
W(X)	1.6-	1.6-	2.0-	1.7-	1.5-	0.3-	1.0-	0.3-
	7.2	11.0	7.6	6.2	10.2	8.8	10.1	6.0
	15.6-	11.5-	10.2-	8.0-	9.2-	9.2-	9.1-	8.1-
	5.2	5.1	4.5	4.0	5.0	4.3	4.0	3.1
W(Y)	1.0-	2.5	4.3	3.2	1.0	0.3	1.5-	3.0-
	6.2	21.6	17.5	14.3	11.5	6.0	6.7	6.0
	13.3-	6.0-	5.5-	1.6-	3.8-	5.7-	12.0-	12.0-
	4.1	6.2	5.2	3.8	3.2	2.6	3.3	3.2

LATITUDE 30° – 35° N.

SEPTEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	3 3	3 3	4 3	3 3	4 3	3 3	3 2
	24.2	24.0	23.3	23.0	22.5	21.8	21.6	21.3
	27.6	27.0	27.0	27.0	26.5	26.0	27.0	26.0
	20.5	20.5	20.5	19.2	18.7	17.0	18.1	17.6
	1.3	1.3	1.5	1.5	1.6	1.7	1.2	1.1
	70	80	109	71	88	86	132	249
T(W)-T(A)	3 3	3 3	3 3	4 3	3 3	4 3	3 3	3 2
	0.5	1.0	1.0	1.0	1.1	1.0	1.1	0.9
	5.5	6.5	6.0	7.2	7.1	6.6	4.3	5.0
	4.2-	4.3-	5.0-	4.0-	3.0-	4.0-	2.1-	4.0-
	2.0	1.7	1.6	2.0	1.6	1.6	1.1	1.2
	62	72	95	58	82	74	124	240
E(W)-E(A)	3 3	3 3	3 3	4 3	3 3	4 3	2 3	3 2
	4.2	5.1	6.0	6.0	5.6	5.7	6.3	5.5
	12.1	13.8	16.3	18.6	16.1	13.2	15.5	13.7
	4.3-	2.2-	5.5-	3.5-	0.8-	1.1-	0.7-	2.0-
	3.5	3.8	3.8	4.3	3.8	3.1	3.0	2.5
	62	71	91	56	78	70	121	234
EA	3 3	3 3	3 3	4 3	3 3	4 3	2 3	3 2
	25.2	24.7	22.5	22.0	21.5	20.3	19.7	19.5
	30.6	32.1	30.2	31.2	30.5	26.0	26.5	26.0
	17.5	16.0	13.8	12.8	12.5	13.5	13.0	3.6-
	3.2	3.6	3.7	4.0	4.0	3.1	3.0	2.8
	62	71	91	56	78	70	121	235
C	3 3	3 3	3 3	4 3	3 3	4 3	3 3	3 2
	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	70	82	108	72	87	88	132	250
P	3 3	3 3	3 3	4 3	3 3	4 3	3 3	3 2
	19.6	19.6	20.5	20.0	19.0	17.6	16.7	16.0
	24.5	26.0	28.0	29.0	28.6	28.0	27.0	26.6
	13.6	5.6	11.7	10.7	9.6	7.5	6.6	1.0
	2.6	3.3	4.0	4.5	4.5	5.0	4.3	4.0
	67	79	101	71	85	83	126	232
W	3 3	3 3	3 3	4 3	3 3	4 3	3 3	3 2
	5.7	5.7	5.5	6.2	6.2	6.1	6.6	5.6
	15.3	13.3	13.8	13.8	12.8	15.3	20.5	16.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.7	2.5	2.8	3.1	2.7	3.7	3.3	2.8
	71	82	107	71	88	82	131	249
W(X)	1.5	1.5	0.9	1.8	1.5	2.0	1.0	1.1
	10.0	10.2	10.5	9.5	10.7	13.8	13.8	13.0
	14.5-	7.6-	10.7-	9.0-	8.1-	7.6-	11.5-	11.0-
	4.1	3.6	4.5	4.8	4.6	4.0	4.8	4.1
W(Y)	1.3	0.1	0.3-	1.5-	1.8-	2.8-	2.1-	1.5-
	10.7	10.7	9.6	9.8	9.6	11.8	12.5	12.0
	8.5-	11.5-	12.8-	13.6-	12.0-	12.8-	20.1-	15.0-
	4.5	4.7	4.0	4.3	4.5	4.8	5.0	4.5

OCTOBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	23.0	22.5	21.6	20.8	20.5	19.6	19.6	19.1
	26.0	28.0	27.0	25.5	27.0	25.5	23.2	23.7
	17.6	15.5	15.5	15.5	16.0	16.0	15.5	15.0
	1.8	2.2	2.2	1.8	2.0	1.5	1.5	1.5
	69	101	95	89	107	107	182	263
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	1.3	1.5	2.0	2.0	1.6	1.7	1.7	1.2
	6.2	7.6	8.2	6.5	5.5	5.5	6.5	5.7
	2.2-	4.5-	3.0-	1.5-	4.0-	4.0-	3.8-	4.5-
	1.5	2.0	2.0	1.6	1.8	1.7	1.7	1.7
	68	98	94	86	103	102	179	261
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	4.6	5.7	7.5	7.2	7.0	7.0	6.8	6.6
	11.0	14.0	16.2	13.1	16.7	13.8	14.2	13.2
	9.2-	4.0-	2.6-	2.0-	2.0-	2.8-	3.3-	9.1-
	3.3	4.0	4.0	3.1	3.5	3.2	3.5	3.0
	66	93	89	82	98	96	177	261
EA	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	24.0	22.3	20.0	19.0	18.1	17.0	17.1	16.1
	35.6	34.7	29.7	28.2	34.7	22.3	25.5	32.5
	14.6	11.7	10.5	10.5	11.0	10.2	9.6	9.7
	3.7	4.2	4.1	3.2	3.5	2.8	3.0	2.7
	66	93	89	82	98	96	177	261
C	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	73	101	94	88	106	103	179	264
P	3 3	3 3	3 3	3 3	3 3	3 3	3 3	4 2
	20.0	21.2	21.6	22.3	22.0	22.1	20.7	19.5
	29.0	29.5	29.6	30.0	30.0	29.0	29.0	27.0
	8.0	11.6	10.6	7.5	9.0	1.6	2.0	3.8
	3.7	3.5	4.0	4.3	4.2	4.8	4.6	4.5
	71	98	90	83	101	103	165	248
W	3 3	3 3	3 3	3 3	3 3	4 3	3 3	4 2
	7.8	7.3	6.5	6.6	6.7	6.5	7.1	6.2
	24.6	15.3	21.5	23.1	16.5	15.3	17.5	16.5
	0.0	0.6	0.5	0.0	0.5	0.5	0.0	0.0
	4.7	3.3	3.8	4.0	3.1	3.2	3.2	3.1
	73	101	92	87	107	104	180	257
W(X)	0.8-	0.8-	0.4	0.5	0.4	0.2	0.8	1.0
	11.6	12.0	13.8	14.6	13.0	14.1	16.0	14.5
	23.0-	14.1-	10.1-	8.6-	9.2-	9.5-	13.0-	8.7-
	6.6	6.0	5.8	6.0	5.6	5.5	5.5	4.5
W(Y)	0.1-	0.5	0.7-	1.1-	1.2-	1.8-	2.5-	2.0-
	17.6	12.0	18.7	17.8	15.5	13.5	16.5	14.5
	13.0-	10.7-	16.0-	14.3-	12.6-	15.3-	14.8-	12.5-
	6.3	5.2	4.8	4.7	4.5	4.5	5.0	4.8

NOVEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	20.0	20.0	19.2	19.1	19.0	17.6	18.0	17.7
	25.0	27.0	25.0	24.0	25.0	23.7	24.0	24.2
	15.0	15.2	14.0	14.0	13.7	13.0	12.5	14.0
	2.0	2.3	2.0	2.1	2.0	2.0	1.8	1.8
	88	109	91	100	129	112	157	280
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	1.5	1.5	1.8	1.5	1.2	1.6	1.5	1.5
	5.5	5.5	6.1	5.6	7.2	6.1	5.0	5.5
	2.1-	4.8-	2.0-	6.0-	3.0-	4.0-	2.3-	8.1-
	1.6	2.0	1.7	1.8	1.8	2.0	1.5	1.8
	85	105	87	97	127	111	154	277
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	4 2
	6.1	6.6	6.5	5.3	5.0	5.2	5.1	5.5
	17.5	16.0	15.1	15.2	15.3	12.8	13.1	12.5
	2.7-	1.5-	2.5-	5.6-	1.8-	3.3-	1.5-	5.2-
	4.5	4.3	4.0	4.1	3.8	3.6	3.3	3.0
	82	97	82	91	121	108	149	268
EA	3 2	3 3	3 3	3 3	3 3	3 3	3 3	4 2
	18.3	17.7	17.3	17.6	17.5	15.8	16.0	15.5
	26.3	26.3	26.0	25.0	25.7	23.6	23.7	23.3
	9.5	9.6	9.0	9.2	8.5	8.5	8.7	9.0
	4.3	4.5	4.0	3.6	3.5	3.2	3.3	3.0
	82	97	82	91	121	108	149	268
C	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	87	110	94	101	128	111	156	278
P	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	16.8	19.5	19.5	19.5	21.0	21.3	20.8	20.7
	30.0	31.6	32.5	29.5	29.5	30.5	29.5	31.5
	5.5-	3.0-	2.2	0.6	9.1	11.7	7.5	4.8
	8.0	6.8	6.5	5.7	3.5	4.7	4.7	5.5
	86	109	91	98	122	108	152	281
W	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	9.5	7.2	8.0	7.6	7.8	8.0	7.5	7.0
	23.1	18.0	23.1	18.0	20.5	18.0	20.5	18.5
	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
	4.1	4.0	5.0	3.7	3.5	3.5	3.5	3.1
	89	109	93	101	128	109	154	275
W(X)	0.6	1.1	2.5	2.2	1.0	1.5	2.2	2.6
	17.0	17.7	23.1	13.6	14.5	12.1	17.7	17.3
	17.5-	12.0-	8.1-	10.1-	15.8-	12.0-	12.3-	13.6-
	6.6	5.6	6.6	5.6	6.0	5.5	5.1	4.5
W(Y)	1.1	0.4	0.1-	0.5	0.5	2.1-	1.1-	0.7-
	15.6	17.0	22.7	16.0	16.3	11.5	9.7	12.3
	23.1-	11.5-	11.0-	12.3-	12.6-	15.6-	17.6-	13.8-
	7.7	6.0	6.3	6.0	6.C	6.1	6.0	5.5

DECEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	15.8	15.7	16.5	17.5	18.5	18.3	18.3	17.3
	21.0	21.0	22.0	24.0	24.2	22.0	22.0	21.6
	11.0	9.2	11.0	10.0	13.6	13.7	13.7	13.1
	2.2	2.1	2.5	2.3	2.1	1.6	1.5	1.5
	45	63	55	54	74	92	145	271
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	2.7	3.0	2.1	1.0	0.6	0.6	0.9	1.1
	7.7	8.5	5.5	5.3	5.6	4.3	5.3	5.6
	2.1-	1.0-	2.1-	1.7-	3.5-	4.5-	2.5-	4.0-
	2.1	2.0	1.8	1.6	1.6	1.7	1.5	1.6
	41	58	52	48	67	84	140	265
E(W)-E(A)	3 2	3 3	3 3	3 3	2 3	3 3	2 3	3 2
	6.6	7.3	5.6	3.0	3.0	2.8	3.8	4.3
	13.7	13.1	12.8	8.6	8.7	9.5	11.0	14.0
	0.5-	1.3-	0.7	2.3-	2.0-	3.1-	3.1-	3.0-
	3.5	3.3	2.8	2.5	2.5	2.7	3.0	3.0
	41	58	52	48	66	82	136	263
EA	3 2	3 3	3 3	3 3	2 3	3 3	2 3	3 2
	13.5	13.0	14.5	17.1	17.6	17.7	17.1	15.6
	22.0	23.3	22.6	24.7	23.7	23.3	22.6	21.6
	8.1	8.0	8.7	11.1	11.0	11.3	11.1	7.7
	3.3	3.0	3.3	3.5	2.7	2.5	2.5	2.5
	41	58	52	48	66	82	136	263
C	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	45	62	55	55	73	93	147	272
P	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	12.2	11.2	9.8	11.5	13.0	16.0	20.6	22.3
	22.5	21.1	21.5	24.0	21.0	25.2	27.0	31.0
	1.0-	1.0-	2.5-	4.3-	13.0-	0.0	0.8-	7.6
	6.2	6.3	6.1	6.2	7.0	6.3	4.6	3.6
	43	64	55	53	72	90	143	271
W	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	10.0	10.6	10.5	9.6	9.6	7.7	6.5	6.2
	19.5	28.2	23.1	21.5	36.0	21.5	17.1	18.0
	0.0	3.0	1.0	2.0	2.5	0.0	0.0	0.0
	4.7	4.8	4.0	4.2	5.5	4.2	3.2	3.5
	45	64	56	55	76	94	146	260
W(X)	6.8	8.0	6.2	4.3	3.8	2.5	0.2-	0.1-
	19.2	26.6	18.0	16.3	16.7	17.7	16.7	16.3
	2.6-	4.5-	8.6-	11.2-	6.0-	7.2-	9.0-	9.6-
	6.0	6.5	6.7	6.5	5.3	5.5	4.0	3.6
W(Y)	1.2-	2.0-	1.1	2.5	5.2	4.5	3.7	2.0
	15.1	12.6	15.0	17.2	35.5	17.6	17.0	17.7
	13.5-	12.6-	12.6-	17.5-	8.6-	7.7-	12.0-	12.3-
	6.1	5.2	6.2	6.5	7.1	4.5	4.6	5.8

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T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	16.2	16.3	16.6	16.5	16.5	16.3	16.5	15.7
	22.0	21.0	26.2	21.0	21.0	21.5	22.0	20.0
	12.0	12.0	12.0	12.0	11.0	11.0	11.0	10.7
	1.7	2.0	2.1	2.0	2.2	2.0	1.8	1.3
	86	114	93	81	92	105	181	259
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.1	0.3	0.1	0.4	1.3	1.1	1.3	1.2
	3.3	5.5	4.5	5.0	10.0	6.0	6.0	8.3
	4.1-	3.5-	7.5-	4.0-	2.0-	3.0-	5.0-	3.8-
	1.5	1.6	1.7	1.7	1.8	2.0	1.8	1.5
	80	104	82	74	86	99	172	249
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	2.1	2.5	2.3	2.1	4.0	3.5	5.0	4.3
	8.5	12.2	9.1	10.1	15.7	9.8	10.5	10.3
	4.0-	3.5-	5.5-	2.1-	1.5-	2.2-	1.1-	3.0-
	2.6	3.1	3.5	3.0	3.1	2.7	2.5	2.2
	55	67	52	46	67	86	151	236
EA	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	15.2	15.6	15.7	16.2	15.3	15.5	14.5	14.0
	20.0	21.8	22.5	21.5	20.8	20.8	22.3	19.8
	8.2	9.3	8.1	9.3	9.2	9.0	8.5	8.3
	3.0	3.0	3.5	3.1	3.1	2.7	2.2	1.8
	55	67	52	46	67	86	151	236
C	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	85	110	96	79	93	107	187	265
P	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	19.7	20.2	21.5	23.2	24.5	25.2	26.0	25.7
	44.0	47.0	39.0	37.0	34.0	35.7	36.0	37.1
	4.5	5.6	2.0	2.0	2.0	2.2	1.5	1.5
	8.5	8.7	7.5	6.5	6.6	5.5	5.5	5.7
	86	113	98	82	94	107	188	263
W	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	9.0	8.3	7.6	7.5	7.5	8.5	7.1	6.6
	23.1	20.5	15.3	15.3	18.0	19.5	20.5	20.5
	3.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
	4.0	4.5	3.6	2.8	3.0	3.5	4.0	3.5
	87	114	94	79	94	106	186	256
W(X)	4.5	3.5	2.6	1.6	0.7	2.0	1.6	1.5
	16.8	15.6	13.5	10.6	11.5	16.3	16.0	17.8
	6.7-	9.0-	11.6-	8.8-	8.6-	9.1-	11.3-	12.6-
	6.0	6.0	5.5	4.8	4.8	5.5	5.6	5.5
W(Y)	4.0	2.5	2.0	2.5	0.9	0.3	0.5-	1.5-
	17.8	14.5	13.3	12.0	16.8	19.5	13.1	13.3
	8.6-	13.3-	10.0-	9.6-	12.8-	14.5-	17.7-	12.0-
	5.1	5.8	5.5	5.6	6.3	7.0	5.5	4.6

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T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	16.5	16.5	16.8	16.5	16.5	15.7	15.7	14.5
	21.0	21.2	21.0	21.0	21.0	20.1	20.0	19.2
	12.0	11.5	11.8	11.5	11.5	11.0	12.6	11.0
	2.0	2.0	2.0	1.7	2.0	1.8	1.5	1.5
	75	79	60	72	89	110	156	241
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.2	0.5	0.5	0.6	1.0	1.2	1.5	1.5
	5.0	5.5	4.6	5.0	5.0	6.1	5.0	6.0
	3.3-	2.5-	3.7-	3.0-	5.5-	3.0-	3.5-	4.8-
	1.5	1.6	1.6	1.5	2.0	1.6	1.5	1.5
	71	76	63	69	84	102	153	231
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	1.5	2.6	2.5	3.0	4.3	4.7	5.8	5.1
	8.3	9.6	8.5	8.2	11.5	10.1	10.8	12.5
	2.0-	1.5-	1.3-	1.5-	1.0-	3.0-	1.0-	3.6-
	2.2	2.5	2.5	2.0	2.6	2.5	2.0	2.1
	52	57	51	59	73	82	136	218
EA	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	16.3	15.6	16.5	15.6	14.7	13.7	13.0	12.1
	20.8	20.2	20.6	20.5	20.5	19.1	20.6	18.5
	10.0	8.5	9.1	9.3	9.3	9.2	8.6	7.6
	2.5	3.0	2.5	2.2	2.8	2.3	1.7	1.7
	52	57	51	59	73	82	136	218
C	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.7	0.8	0.6	0.6	0.6	0.8	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3
	74	78	64	70	89	110	156	•240
P	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	19.3	23.0	24.5	25.7	27.1	28.0	27.7	27.0
	29.0	33.5	35.0	34.7	36.0	35.5	34.5	34.7
	5.0	5.6	6.0	13.0	13.5	16.5	20.0	20.5
	6.3	5.8	6.2	5.3	4.2	3.5	3.3	3.5
	73	77	66	69	87	108	150	236
W	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	8.5	7.2	6.3	6.1	6.7	7.1	7.0	7.3
	21.0	15.3	20.5	13.8	15.3	14.3	12.8	15.3
	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.5
	3.7	3.0	3.5	2.7	2.8	2.5	2.7	3.0
	75	80	67	73	89	110	153	236
W(X)	1.7	1.5-	1.6-	2.7-	3.3-	4.2-	4.6-	3.3-
	21.0	7.5	9.0	5.8	8.1	2.8	6.0	9.5
	11.0-	10.5-	10.2-	12.8-	12.0-	12.3-	12.0-	12.0-
	6.2	3.8	3.5	3.3	3.8	3.7	3.7	4.1
W(Y)	3.0	2.8	2.8	2.5	1.8	0.0	2.5-	4.7-
	12.3	15.1	20.5	13.0	15.1	10.5	12.3	6.2
	12.0-	12.8-	7.7-	12.0-	9.6-	12.8-	12.8-	15.1-
	5.8	6.0	5.5	4.5	5.0	5.0	3.5	3.5

MARCH 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	15.7	16.1	16.3	16.5	16.5	15.8	15.3	14.3	
	21.0	22.7	22.0	21.5	21.0	21.0	20.5	24.2	
	11.5	12.0	11.0	12.0	12.0	12.0	11.5	11.0	
	1.8	2.1	2.3	2.1	1.7	1.7	1.6	1.6	
	111	129	126	118	136	152	197	300	
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.4	0.6	0.5	1.0	1.0	1.1	1.5	1.2	
	4.0	5.2	4.6	6.0	6.1	5.5	6.0	5.0	
	7.7-	6.6-	3.0-	3.5-	4.0-	5.0-	3.3-	8.7-	
	2.0	2.0	2.0	2.0	1.8	1.6	1.7	1.6	
	109	125	119	111	127	143	191	291	
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	3.5	3.5	3.0	3.1	4.0	4.0	4.5	4.0	
	9.3	11.0	10.2	10.5	11.1	10.2	13.0	10.5	
	4.7-	7.0-	3.0-	2.1-	7.6-	1.0-	5.2-	6.5-	
	3.0	3.5	3.3	3.0	3.0	2.2	2.3	2.1	
	84	100	104	101	115	135	182	279	
EA	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	14.0	14.7	15.1	15.5	15.1	14.1	13.5	12.7	
	21.2	20.8	22.2	20.8	21.6	20.0	22.2	23.5	
	9.3	8.2	8.6	9.3	9.2	9.0	9.6	8.2	
	2.8	3.1	3.5	3.0	2.6	2.1	1.8	2.1	
	84	100	104	101	115	135	182	279	
C	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.6	0.8	0.7	0.7	0.7	0.7	0.7	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	106	125	114	117	136	153	196	297	
P	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	22.8	23.3	24.7	25.1	25.0	26.2	26.0	24.5	
	34.2	34.0	34.7	36.0	41.5	46.2	47.6	35.5	
	2.5	2.1	2.0	11.1	2.5	2.2	2.2	2.1	
	7.2	6.5	5.5	5.5	7.8	8.3	8.1	7.7	
	109	128	122	109	133	152	196	299	
W	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	7.3	7.1	7.6	7.5	7.5	7.0	7.5	7.6	
	14.3	18.0	16.5	18.0	20.5	18.0	18.0	15.3	
	0.0	1.0	0.0	0.0	0.0	0.0	1.5	1.0	
	3.0	3.2	3.5	4.2	4.3	3.3	3.0	3.1	
	111	128	124	116	137	148	192	292	
W(X)	2.1-	2.3-	1.3-	0.2	0.2	0.6-	0.8-	0.5	
	13.6	11.2	9.5	12.0	15.1	11.2	10.6	13.0	
	12.8-	16.8-	14.5-	11.6-	13.8-	13.0-	10.5-	12.0-	
	5.3	4.6	4.2	4.7	5.5	5.5	5.0	4.3	
W(Y)	1.1	0.8-	1.3-	1.0-	1.0-	1.1-	2.7-	4.2-	
	14.3	10.7	12.0	12.6	11.0	11.6	17.7	14.5	
	10.7-	14.1-	16.5-	18.0-	20.1-	16.8-	16.8-	14.5-	
	5.3	5.8	7.0	7.1	6.6	5.3	5.6	5.5	

APRIL 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	16.0	16.8	17.2	16.8	16.7	16.0	15.3	14.0	
	22.0	22.0	24.2	22.0	22.0	21.0	21.5	21.0	
	10.0	11.0	12.0	12.0	11.5	12.6	11.0	10.5	
	2.5	2.3	2.2	2.0	1.8	1.6	1.6	1.5	
	106	115	122	102	118	114	177	252	
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.6	0.4	0.2	0.3	0.3	0.6	1.2	1.6	
	6.5	5.0	4.5	5.6	6.0	5.0	5.5	6.0	
	4.0-	5.3-	5.5-	4.0-	6.0-	5.5-	4.5-	6.7-	
	2.1	2.0	1.5	1.5	2.0	1.7	1.7	1.6	
	99	108	107	91	107	105	166	241	
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	2.7	2.7	2.1	2.7	3.5	4.0	5.0	4.5	
	9.5	11.5	9.5	9.3	9.2	9.3	9.5	9.6	
	2.2-	4.0-	3.5-	3.0-	3.0-	0.8-	6.2-	2.5-	
	2.7	2.6	2.3	2.2	2.5	2.3	2.1	2.0	
	81	93	100	85	95	96	159	236	
EA	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	15.6	15.8	16.5	15.8	15.0	13.8	12.8	12.1	
	22.6	22.3	23.0	20.8	19.2	19.6	24.5	17.5	
	8.6	8.1	9.8	8.7	9.6	7.8	8.1	8.2	
	3.1	2.8	3.0	2.5	2.1	2.2	1.8	1.6	
	81	93	100	85	95	96	159	236	
C	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	
	108	118	120	100	119	115	176	252	
P	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	23.1	23.2	24.6	27.2	29.0	29.7	29.3	27.5	
	34.5	34.5	35.5	34.7	34.7	37.0	39.0	35.0	
	6.1	10.0	10.6	18.0	23.0	24.5	22.5	15.7	
	6.7	7.1	5.8	3.7	2.8	2.8	3.1	3.5	
	107	116	119	101	118	115	177	252	
W	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	8.3	7.6	7.0	7.1	6.6	6.3	6.5	7.2	
	20.5	19.0	14.8	13.8	14.3	12.8	12.8	20.5	
	1.5	0.0	1.0	0.6	0.0	2.2	1.0	1.1	
	4.0	4.0	3.1	3.0	3.0	2.3	2.6	3.0	
	106	116	122	101	115	110	176	247	
W(X)	1.7-	3.1-	3.0-	3.5-	3.7-	3.7-	4.0-	2.3-	
	13.8	14.6	12.6	9.1	8.6	7.5	5.8	7.6	
	15.0-	15.0-	14.6-	13.0-	14.1-	12.0-	12.0-	10.5-	
	6.3	5.5	4.8	4.8	4.6	3.7	3.5	3.5	
W(Y)	2.5-	0.4-	0.7	1.0	0.5-	1.3-	3.0-	5.8-	
	12.6	15.5	11.7	12.0	7.8	9.7	7.0	2.5	
	16.0-	18.0-	14.1-	10.6-	7.7-	8.5-	9.6-	20.5-	
	6.0	5.8	5.0	4.8	4.0	3.8	3.1	3.0	

LATITUDE 30°-35° N.

MAY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	19.2	19.3	18.5	17.6	16.5	15.6	16.2	14.8
	26.0	24.0	24.0	24.2	22.6	20.0	60.0	58.0
	13.7	15.5	15.0	13.0	13.1	12.6	12.0	10.0
	1.8	1.6	1.8	2.1	1.7	1.7	4.2	3.1
	63	79	63	53	64	64	125	229
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.3	0.3	0.9	1.0	1.2	1.0	1.0	0.8
	3.5	4.2	6.5	6.0	4.5	4.3	5.5	6.0
	4.0-	4.0-	3.0-	6.0-	3.6-	4.0-	5.5-	5.0-
	1.5	1.7	1.8	2.1	1.6	1.8	1.7	1.5
	54	71	56	43	55	56	117	225
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	2.3	3.5	4.5	5.1	5.5	4.8	4.5	3.6
	9.1	12.8	13.5	14.5	11.3	8.1	9.8	8.6
	1.0-	3.1-	1.8-	1.2-	0.7	0.7	1.5-	1.3-
	2.5	3.3	3.5	3.0	2.0	2.0	2.1	2.0
	52	68	51	41	54	53	114	218
EA	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	19.0	18.0	16.5	14.7	13.5	13.0	13.5	12.8
	24.1	22.6	21.2	19.5	17.7	18.6	19.8	18.6
	11.1	11.8	11.0	9.1	8.5	9.5	9.3	8.6
	2.6	2.5	2.8	2.6	1.7	1.7	2.2	2.0
	52	68	51	41	54	53	114	218
C	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.7	0.6	0.7	0.7	0.8	0.8	0.8	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.3	0.1	0.1	0.0
	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
	63	79	63	55	65	67	128	227
P	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	23.0	24.1	25.1	26.0	27.8	26.5	25.1	24.1
	29.0	31.5	36.0	36.7	36.0	37.7	37.0	33.5
	13.7	16.5	11.7	11.0	15.0	9.0	15.0	8.1
	3.6	3.2	5.2	6.1	5.7	7.5	5.1	4.5
	63	80	63	55	66	67	128	229
W	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	8.3	7.2	7.0	7.0	7.0	6.7	7.0	7.1
	14.3	16.0	14.3	10.7	13.8	14.3	18.0	17.5
	1.8	1.5	1.5	1.0	1.5	1.5	0.5	1.0
	3.0	3.0	2.7	2.5	2.5	2.7	3.0	2.8
	62	80	62	54	65	66	121	225
W(X)	6.1-	4.8-	3.3-	3.2-	3.0-	0.2-	1.2-	0.3
	6.5	7.1	8.6	10.0	12.0	13.6	15.1	17.2
	14.3-	12.8-	12.8-	10.5-	10.2-	10.0-	10.1-	10.0-
	4.6	4.0	4.8	5.0	5.0	5.7	4.2	4.0
W(Y)	2.1	1.2	0.2-	1.7-	3.1-	2.0-	2.5-	3.6-
	12.6	14.5	13.5	7.0	4.8	11.1	17.7	13.5
	5.0-	9.1-	10.2-	10.0-	11.0-	8.6-	12.6-	13.0-
	3.7	4.5	4.6	4.0	3.6	4.0	5.5	5.5

JUNE 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	4 3	4 3	3 3	3 3	3 3	3 2
	21.0	21.5	21.0	20.5	19.7	18.2	18.3	17.0
	26.0	28.0	26.0	26.0	25.6	26.0	26.5	25.0
	16.0	17.0	16.0	15.0	15.5	15.0	14.2	13.0
	2.1	2.1	2.0	2.0	1.8	1.7	1.8	1.6
	62	87	71	77	94	96	171	272
T(W)-T(A)	3 2	3 3	4 3	3 3	3 3	3 3	3 3	3 2
	0.5-	0.3-	0.5-	0.2-	0.4-	0.1	0.1	0.1-
	2.7	3.0	4.0	4.0	4.0	3.3	4.0	3.5
	6.0-	5.0-	5.0-	5.5-	5.0-	6.6-	6.5-	7.5-
	1.7	1.6	1.6	2.0	1.7	1.6	1.7	1.6
	57	73	59	68	84	88	160	266
E(W)-E(A)	3 2	3 3	4 3	3 3	3 3	3 3	2 3	3 2
	1.7	2.0	1.2	2.3	2.0	2.1	2.8	2.3
	8.5	10.0	7.0	9.5	10.6	7.1	10.1	7.7
	4.7-	2.5-	4.3-	2.6-	3.5-	2.1-	3.7-	4.0-
	2.7	3.0	2.7	2.8	2.8	2.1	2.1	2.2
	53	68	51	60	76	81	152	258
EA	3 2	3 3	4 3	3 3	3 3	3 3	2 3	3 2
	21.3	21.8	21.7	20.1	19.1	17.6	17.1	15.8
	26.7	29.0	26.0	25.0	26.8	22.6	22.6	21.5
	13.5	13.8	16.3	15.5	14.2	13.5	11.5	11.5
	3.2	3.2	2.1	2.1	2.5	2.1	2.0	2.0
	53	68	51	60	76	81	152	258
C	3 2	3 3	4 3	3 3	3 3	3 3	3 3	3 2
	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	67	90	74	75	94	94	171	271
P	3 2	3 3	4 3	3 3	3 3	3 3	3 3	3 2
	19.0	19.8	21.2	22.2	21.5	21.6	22.5	22.3
	28.6	30.2	31.0	31.0	31.5	33.1	31.0	30.0
	6.0	3.1	7.0	11.0	5.0	1.0	4.0-	10.5
	6.3	6.7	6.3	5.8	7.5	8.2	6.1	3.6
	68	90	74	78	96	96	166	262
W	3 2	3 3	4 3	3 3	3 3	3 3	3 3	3 2
	6.3	6.2	6.1	5.5	6.0	6.8	6.5	6.6
	12.8	17.5	15.3	12.8	12.8	15.3	23.1	15.3
	1.0	0.0	0.5	0.0	0.5	2.0	0.0	0.0
	2.7	3.8	3.3	2.5	2.6	3.0	3.1	2.7
	68	89	76	80	93	97	167	271
W(X)	2.0	1.2	1.1	0.8	0.6	0.8	0.6	0.6
	12.8	12.6	11.6	12.6	12.8	13.2	14.6	9.0
	7.6-	7.7-	8.0-	8.0-	12.0-	8.6-	10.0-	8.5-
	5.0	4.5	4.3	4.3	4.8	5.2	4.6	3.5
W(Y)	1.5	2.6	2.8	1.8	1.5	0.1-	1.0-	3.6-
	9.0	16.5	13.5	10.1	12.0	14.1	17.8	13.5
	8.8-	7.3-	6.6-	7.7-	11.0-	8.8-	8.7-	13.6-
	4.0	5.0	4.5	3.5	4.0	5.2	5.5	5.0

LATITUDE 30° - 35° N.

JULY 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3 24.5 27.0 22.0 1.1 42	3 3 24.2 28.0 22.0 1.2 47	4 3 23.3 30.0 21.0 1.8 44	4 3 22.7 28.0 20.5 1.5 44	3 3 21.1 27.6 18.0 1.7 51	4 3 20.6 24.2 17.6 1.3 49	2 3 19.6 23.1 17.0 1.1 136	4 2 18.6 22.6 13.7 1.2 253	
T(W)-T(A)	3 3 0.2 3.0 3.5- 1.3 40	3 3 0.2 3.0 4.0- 1.5 42	4 3 0.8 3.3 4.0- 1.3 34	4 3 0.7 5.0 4.0- 1.6 35	3 3 0.8 4.0 4.0- 1.7 41	4 3 0.5 4.0 3.2- 1.6 42	2 3 1.0 4.5 4.0- 1.3 122	4 2 0.3 3.5 5.5- 1.6 242	
E(W)-E(A)	3 3 4.7 8.5 0.5 2.1 39	3 3 5.0 10.2 0.9- 2.7 41	4 3 6.3 10.5 1.7 2.0 33	4 3 4.5 8.8 1.5- 2.6 34	3 3 5.1 10.5 1.0- 2.6 37	4 3 4.5 9.5 0.8- 2.8 38	2 3 4.6 11.0 0.4- 2.1 117	4 2 3.3 9.5 3.3- 2.1 232	
EA	3 3 24.3 29.5 21.1 1.6 39	3 3 24.0 27.6 19.2 2.0 41	4 3 22.1 27.5 18.0 2.0 33	4 3 22.1 28.7 18.7 2.0 34	3 3 20.0 24.3 16.3 1.8 37	4 3 19.0 23.0 13.8 2.3 38	2 3 18.2 22.3 12.3 2.0 117	4 2 17.2 22.0 12.0 1.6 232	
C	3 3 0.5 1.0 0.0 0.3 43	3 3 0.5 1.0 0.0 0.3 48	4 3 0.6 1.0 0.1 0.3 43	4 3 0.6 1.0 0.1 0.3 45	3 3 0.7 1.0 0.1 0.3 53	4 3 0.7 1.0 0.0 0.3 50	2 3 0.8 1.0 0.0 0.2 137	4 2 0.8 1.0 0.0 0.2 248	
P	3 3 26.5 29.5 22.5 1.5 41	3 3 26.5 30.0 22.2 1.6 48	4 3 27.3 32.0 22.2 2.0 44	4 3 27.2 32.0 21.1 2.0 44	3 3 25.6 32.0 20.5 2.3 52	4 3 25.0 32.0 19.1 2.6 49	2 3 23.3 30.0 18.0 2.1 134	4 2 22.1 26.7 10.5 2.5 252	
W	3 3 5.5 11.2 1.5 2.2 42	3 3 6.7 15.3 1.0 3.3 47	4 3 7.0 15.3 2.5 3.3 42	4 3 5.6 11.2 1.5 2.6 42	3 3 5.6 10.7 0.0 2.6 50	4 3 5.5 12.3 0.0 3.0 51	2 3 4.8 12.3 0.5 2.2 131	4 2 5.5 13.3 0.0 2.6 248	
W(X)	4.3- 1.6 11.2- 2.8	5.2- 3.0 15.1- 4.2	4.6- 5.2 15.1- 5.0	2.0- 5.2 9.7- 4.0	2.0- 5.2 10.5- 3.5	0.9- 6.1 6.6- 3.1	1.5- 6.0 9.5- 3.1	0.5- 6.7 9.5- 3.0	
W(Y)	0.7 8.8 6.0- 3.0	1.3- 5.0 10.7- 2.8	2.0- 4.6 8.0- 2.8	2.1- 3.6 10.2- 3.6	3.1- 4.7 10.7- 3.5	3.0- 5.8 12.3- 4.3	2.5- 6.6 11.5- 3.1	4.0- 7.2 12.8- 3.5	

AUGUST 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 2 25.0 28.0 23.0 1.1 34	3 3 25.0 28.0 20.5 1.5 42	3 3 23.8 27.0 21.5 1.2 42	3 3 23.0 27.0 20.0 1.6 43	3 3 22.3 31.5 20.0 1.5 68	3 3 21.8 26.0 19.2 1.5 82	2 3 21.5 27.0 18.7 1.2 155	4 2 20.3 25.0 17.6 1.2 251	
T(W)-T(A)	3 3 0.7 3.0 3.0- 1.2 29	3 3 0.4 5.0 3.8- 1.6 37	3 3 1.5 5.5 1.0- 1.3 35	3 3 1.3 5.0 3.0- 1.5 39	3 3 1.0 4.2 6.0- 1.5 62	3 3 1.0 5.0 2.7- 1.3 71	2 3 0.8 3.8 5.5- 1.3 146	4 2 0.4 3.8 5.3- 1.5 243	
E(W)-E(A)	3 3 5.8 11.0 2.0 2.0 29	3 3 6.5 12.5 3.0 2.3 37	3 3 7.0 12.2 1.8 2.6 35	3 3 6.0 14.7 1.2 3.0 37	3 3 5.8 15.1 0.1- 2.5 59	3 3 5.5 14.8 1.6- 2.6 69	2 3 5.5 11.2 0.4 2.1 144	4 2 4.5 11.8 3.5- 2.3 240	
EA	3 3 24.8 30.2 20.3 2.0 29	3 3 24.0 28.5 20.3 2.0 37	3 3 23.1 27.3 18.1 2.0 35	3 3 22.3 26.6 16.1 2.3 37	3 3 21.1 25.7 15.0 2.3 59	3 3 20.6 26.7 15.6 2.6 69	2 3 20.0 24.5 13.7 2.1 144	4 2 18.6 23.3 13.0 1.8 240	
C	3 3 0.5 1.0 0.0 0.2 34	3 3 0.5 1.0 0.0 0.2 43	3 3 0.5 1.0 0.0 0.3 42	3 3 0.6 1.0 0.0 0.3 43	3 3 0.6 1.0 0.0 0.3 73	3 3 0.7 1.0 0.0 0.3 85	2 3 0.7 1.0 0.0 0.3 159	4 2 0.8 1.0 0.1 0.3 256	
P	3 2 23.0 31.0 14.5 4.0 34	3 3 22.5 30.0 14.2 4.1 43	3 3 22.6 29.0 18.5 2.8 42	3 3 24.0 30.5 18.5 2.8 43	3 3 23.7 28.6 19.1 2.2 72	3 3 23.5 28.0 17.6 2.1 82	2 3 22.0 28.0 15.5 2.5 154	4 2 20.8 26.5 13.2 2.6 244	
W	3 3 5.8 12.8 1.5 3.0 32	3 4 5.2 12.8 1.0 3.2 36	3 3 5.0 13.8 0.5 3.5 35	3 3 6.0 11.7 0.0 3.0 44	3 3 6.0 13.8 0.0 2.7 68	3 3 6.2 12.8 2.0 2.3 78	2 3 5.2 12.8 0.5 2.5 153	4 2 5.0 15.3 0.0 2.6 243	
W(X)	2.7- 5.8 12.8- 5.1	2.8- 4.0 12.8- 4.5	3.5- 2.2 13.0- 3.8	3.7- 5.0 10.7- 4.0	4.2- 3.5 13.0- 3.5	3.1- 6.2 12.6- 4.2	2.3- 5.8 11.0- 3.6	0.9- 6.1 10.0- 3.0	
W(Y)	1.5 6.2 5.1- 2.7	0.8 7.1 6.6- 2.7	0.2- 10.0 5.6- 3.2	0.8- 7.7 9.1- 4.0	1.8- 5.7 7.6- 2.8	2.8- 4.0 7.8- 2.7	2.8- 4.0 10.5- 2.5	3.2- 7.0 13.3- 3.3	

LATITUDE 30° - 35° N.

SEPTEMBER 1964

	LONGITUDE WEST							
	170	165	160	155	150	145	140	135 130
T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	24.5	24.3	24.0	23.5	22.5	21.5	20.5	19.2
	28.0	31.0	27.6	27.6	29.5	26.0	24.2	24.2
	19.0	19.0	20.0	21.0	18.0	18.7	17.0	16.5
	1.7	1.7	1.2	1.1	1.5	1.5	1.1	1.3
	67	74	69	69	88	103	152	232
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	1.5	1.0	0.9	0.9	1.0	1.0	1.0	0.8
	6.0	4.6	4.1	4.5	4.5	5.7	5.0	5.5
	2.0-	5.5-	4.0-	3.8-	6.5-	5.0-	4.2-	5.0-
	1.5	1.6	1.7	1.5	1.6	1.5	1.5	1.5
	63	71	65	67	84	99	150	230
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	7.6	7.0	7.0	7.5	7.2	6.5	6.1	5.5
	17.1	17.6	18.0	14.5	12.8	14.2	14.0	11.5
	1.0	2.0	1.0	1.5	1.1-	0.9-	1.5-	1.5-
	3.7	3.0	3.3	2.7	2.5	2.6	2.5	2.3
	62	68	61	63	79	95	145	227
EA	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	23.8	24.0	23.0	21.5	20.0	19.1	18.0	16.5
	29.7	28.6	28.8	27.1	31.0	26.5	24.8	24.8
	14.2	14.0	15.2	17.1	14.0	14.0	12.3	12.3
	3.8	3.0	2.6	2.5	2.8	2.5	2.2	2.1
	62	68	61	63	79	95	145	227
C	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.5	0.5	0.4	0.4	0.5	0.7	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3
	69	78	71	72	88	102	151	234
P	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	20.6	20.5	22.3	23.5	24.1	24.8	23.2	22.0
	24.5	26.2	26.7	28.0	30.5	32.0	32.7	29.5
	14.0	13.0	14.5	17.0	2.0	19.0	16.0	13.0
	2.8	3.6	3.3	2.2	3.0	2.5	3.0	3.0
	65	74	70	66	85	98	148	231
W	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	5.5	5.5	4.8	5.0	5.2	5.6	6.5	7.0
	13.8	13.8	10.2	10.7	10.2	12.8	12.8	18.0
	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.5	3.0	2.2	2.3	2.3	3.0	2.7	3.2
	65	76	67	67	85	102	150	235
W(X)	2.0-	1.3-	2.5-	2.7-	4.0-	4.2-	4.3-	2.6-
	8.0	9.0	5.0	3.8	2.3	3.2	3.2	6.0
	11.2-	12.0-	8.1-	10.6-	10.2-	12.0-	12.6-	12.8-
	4.2	3.8	2.5	3.0	2.7	3.3	3.3	3.1
W(Y)	0.5-	0.1	1.1	2.0	0.7-	1.8-	3.5-	5.7-
	7.0	9.1	10.2	9.2	7.7	5.0	1.1	3.8
	12.6-	13.6-	7.6-	7.5-	8.0-	11.1-	9.6-	18.0-
	4.5	4.6	3.7	3.2	3.1	2.6	2.2	3.2

OCTOBER 1964

	LONGITUDE WEST							
	170	165	160	155	150	145	140	135 130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	21.6	21.3	20.6	20.3	19.7	19.7	20.0	19.0
	26.5	28.5	28.1	25.0	24.0	24.0	23.0	25.5
	16.5	16.5	15.0	15.0	13.1	13.1	14.2	14.0
	2.0	2.2	2.0	2.2	2.1	1.7	1.2	1.3
	101	118	112	105	123	117	190	284
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	1.7	1.6	2.0	2.0	1.8	1.3	0.9	0.5
	6.6	8.8	7.1	8.0	8.0	7.7	7.0	5.0
	2.1-	4.5-	3.1-	3.0-	3.0-	2.6-	2.5-	6.6-
	2.0	2.0	2.1	2.0	2.0	1.7	1.5	1.6
	98	114	109	98	119	111	186	279
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	7.0	7.0	7.0	7.2	7.0	5.2	4.5	3.7
	15.5	16.3	16.6	16.0	14.7	12.0	11.2	9.5
	1.1-	2.7-	1.3-	0.2-	1.5-	0.7-	2.1-	4.0-
	4.0	4.2	4.0	4.0	3.1	2.6	2.3	2.5
	91	106	103	93	116	106	179	273
EA	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	20.1	19.5	18.8	18.0	17.5	18.1	18.5	17.5
	27.3	26.7	25.0	26.6	26.3	24.8	24.8	22.6
	12.0	11.2	11.0	9.2	8.5	11.1	12.5	13.1
	4.1	4.0	3.5	4.2	3.5	2.8	2.0	1.6
	91	106	103	93	116	106	179	273
C	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	102	118	109	101	123	118	191	285
P	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	23.2	23.0	22.1	21.2	20.0	18.3	18.7	18.5
	32.7	34.0	34.0	32.0	29.5	27.0	28.2	25.6
	13.7	9.0	8.0	9.0	6.5	5.0	7.6	2.2
	4.3	5.0	5.1	5.1	5.6	5.7	4.2	5.1
	97	109	102	98	116	107	178	275
W	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	7.3	7.2	7.6	8.0	7.6	8.1	7.0	6.0
	15.3	18.0	17.0	24.1	20.5	18.5	17.0	17.5
	1.0	0.0	1.5	0.9	0.0	0.0	0.0	0.0
	3.5	4.2	3.8	4.1	4.0	4.3	3.5	3.0
	100	117	107	107	120	119	187	277
W(X)	0.9-	0.8	2.1	2.6	2.5	2.2	0.9	0.8
	13.3	12.8	12.1	15.6	15.8	15.3	12.0	13.0
	11.6-	12.5-	9.7-	9.2-	9.0-	14.0-	11.5-	9.5-
	5.5	5.1	5.0	5.5	5.3	5.8	5.0	4.2
W(Y)	2.0-	2.2-	3.2-	2.2-	2.3-	1.5-	0.2	1.2-
	9.1	10.1	10.0	12.0	12.0	18.0	17.0	17.1
	14.5-	17.6-	16.5-	18.3-	18.0-	15.7-	15.8-	13.3-
	5.5	6.1	5.5	6.2	5.8	6.5	6.0	5.0

LATITUDE 30° – 35° N.

NOVEMBER 1964

LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	19.6	19.0	18.5	18.3	18.3	17.8	17.5	17.0
	25.0	24.0	24.0	24.0	22.1	23.1	23.7	22.5
	15.5	14.0	13.0	14.0	13.0	13.0	13.5	13.1
	1.7	1.7	2.0	1.6	1.8	1.7	1.6	1.3
	120	143	142	145	154	164	207	302
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	1.3	1.3	1.7	1.6	1.5	1.2	1.2	1.1
	6.2	10.0	9.0	7.0	9.0	8.0	8.0	5.5
	2.0-	2.5-	3.5-	2.5-	3.3-	3.1-	4.5-	4.5-
	1.8	2.0	2.2	2.0	2.0	1.8	1.7	1.6
	115	140	135	137	141	150	195	289
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	5.7	5.6	6.0	5.7	5.0	4.3	4.7	4.5
	14.0	17.0	14.0	13.2	13.7	11.5	12.5	12.0
	2.7-	1.7-	2.6-	2.0-	4.0-	4.3-	2.7-	3.0-
	3.8	3.7	4.0	4.1	3.7	3.6	3.5	3.1
	106	130	121	131	129	139	184	279
EA	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	17.7	17.0	16.5	16.3	16.7	16.5	15.6	15.0
	25.5	24.0	24.8	24.8	26.5	23.8	23.3	22.2
	7.7	8.5	9.0	9.3	8.0	8.7	9.2	9.2
	3.3	3.0	3.5	3.6	3.6	3.5	3.0	2.6
	106	130	121	131	129	139	184	279
C	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	117	137	140	141	152	157	202	294
P	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	16.5	16.3	21.0	21.6	22.5	22.5	22.0	21.2
	34.5	34.5	33.5	37.0	35.5	35.5	33.5	33.0
	10.5-	8.8-	4.0-	2.8-	6.2	5.0	9.0	9.0
	12.3	13.2	11.0	10.0	8.2	6.0	4.6	4.8
	114	138	139	141	154	163	206	302
W	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	10.2	9.5	8.0	7.5	8.0	8.7	7.6	7.5
	25.6	23.1	18.0	19.5	18.0	23.1	18.0	25.6
	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5
	4.5	4.0	3.5	3.3	3.3	3.5	3.5	3.5
	121	143	144	143	158	166	208	301
W(X)	0.3	0.9-	1.7-	0.6-	0.1-	0.0	0.9	1.3
	23.1	22.7	12.6	14.1	15.5	11.1	11.8	13.5
	13.3-	16.7-	17.7-	14.1-	11.1-	10.2-	10.2-	8.7-
	8.0	7.5	5.6	5.5	5.0	4.8	4.8	4.8
W(Y)	2.8	3.0	0.7	0.4-	0.4-	0.7-	1.3-	2.2-
	22.1	16.8	14.5	19.5	18.0	21.7	14.0	11.0
	17.6-	17.6-	15.1-	12.3-	13.5-	15.8-	17.0-	25.6-
	7.1	6.3	6.2	6.1	7.1	8.0	6.6	6.1

DECEMBER 1964

LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	16.7	16.8	17.5	18.0	18.1	18.5	18.0	17.0
	21.0	21.0	24.0	24.2	23.7	22.0	22.0	20.7
	13.0	12.0	11.0	12.0	12.0	11.5	11.5	10.5
	1.8	2.0	2.1	2.0	2.0	1.7	1.5	1.6
	77	113	93	100	112	142	199	282
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	1.6	2.0	1.1	1.0	1.0	0.3	0.5	0.3
	7.0	6.0	5.3	5.2	6.0	6.5	7.1	6.0
	2.0-	2.0-	4.0-	4.2-	3.0-	5.5-	4.8-	4.1-
	2.0	1.8	1.6	1.8	1.8	1.7	1.7	1.7
	71	108	87	95	107	133	193	274
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	4.7	5.1	3.3	3.1	3.2	1.8	2.2	1.8
	14.0	13.6	13.8	10.0	10.3	9.5	12.2	9.6
	1.6-	3.5-	2.8-	3.5-	2.8-	7.3-	3.6-	4.3-
	3.5	3.5	3.2	3.2	3.5	3.0	2.8	2.7
	67	101	82	92	103	122	190	267
EA	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	15.2	15.3	17.0	17.6	17.6	18.5	17.7	16.7
	21.2	22.0	24.8	24.1	24.8	24.8	24.8	23.3
	8.6	9.5	9.6	10.1	8.5	10.3	8.0	8.6
	3.0	3.2	3.3	3.3	3.5	3.0	2.7	2.7
	67	101	82	92	103	122	190	267
C	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	68	103	81	92	107	138	189	263
P	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	12.2	13.0	14.8	15.8	15.8	15.3	19.0	20.5
	26.6	26.0	29.0	32.5	31.5	29.5	32.5	32.0
	19.3-	14.0-	14.0-	10.0-	3.0-	6.8-	3.0	6.6
	12.1	9.7	8.0	7.7	8.2	8.0	6.0	5.1
	77	111	90	97	108	135	194	283
W	3 3	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	9.7	10.0	9.7	8.8	8.1	8.3	7.3	6.6
	30.2	27.2	21.5	19.5	23.1	20.5	18.5	18.5
	0.0	0.0	0.0	1.0	1.5	0.5	0.0	0.0
	6.3	5.0	3.5	4.0	4.1	4.3	3.7	3.5
	78	113	92	100	111	142	189	275
W(X)	1.2	2.5	0.8	2.5	2.7	4.1	2.5	2.2
	18.0	18.0	16.5	19.5	20.5	20.5	11.7	17.0
	24.5-	25.5-	13.8-	13.3-	15.3-	5.7-	11.8-	10.7-
	9.0	7.6	7.5	6.6	6.1	4.8	4.2	4.5
W(Y)	0.8	1.0	2.5	2.0	3.0	4.0	3.1	1.5
	15.8	18.8	21.5	15.6	15.1	18.5	14.2	16.5
	19.2-	12.3-	12.0-	11.7-	11.1-	12.0-	16.8-	17.3-
	7.3	7.5	6.5	6.1	5.5	5.6	5.8	5.5

JANUARY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	14.6	15.3	16.1	16.8	17.5	17.5	17.1	15.3
	19.0	20.5	20.7	21.0	25.0	21.0	21.0	21.5
	9.3	10.0	11.0	12.6	12.6	12.6	13.1	11.5
	2.5	2.5	2.3	2.0	2.2	1.7	1.5	1.6
	63	76	81	75	82	104	181	273
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	2.0	2.0	1.5	1.0	1.0	0.6	0.7	1.0
	6.8	6.5	6.8	6.0	6.0	6.0	5.5	6.1
	1.2-	2.1-	2.0-	2.5-	5.0-	3.0-	3.3-	3.8-
	1.7	2.0	2.0	1.8	2.0	1.8	1.6	1.5
	61	72	77	72	79	102	177	265
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	5.0	5.1	3.8	3.8	3.5	2.5	3.1	3.5
	11.0	12.3	12.3	11.6	12.0	10.8	10.0	10.7
	0.4-	1.2-	1.5-	2.5-	3.5-	4.2-	4.3-	2.8-
	2.5	3.1	3.3	3.1	3.8	3.1	3.1	2.5
	61	72	77	71	78	102	173	260
EA	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	13.0	13.7	15.2	15.5	16.6	17.1	16.0	14.0
	20.0	22.1	22.0	22.0	23.0	22.0	22.0	20.5
	6.2	6.0	6.7	7.8	9.0	9.3	8.6	6.6
	3.1	3.6	3.6	3.2	4.0	3.0	3.0	2.2
	61	72	77	71	78	102	173	260
C	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	64	73	83	72	77	100	178	268
P	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	10.7	11.0	11.1	12.6	14.3	16.0	21.2	22.6
	29.0	28.0	24.7	26.6	31.2	34.0	35.5	36.7
	16.6-	12.3-	14.0-	9.5-	3.0-	0.5	6.0	3.0
	10.6	9.7	7.0	7.0	8.3	7.3	6.6	6.5
	63	77	83	75	82	107	177	272
W	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2
	8.3	7.8	9.0	8.5	7.5	8.5	8.1	6.5
	20.0	15.3	24.5	23.1	20.5	21.0	17.5	17.5
	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
	3.6	4.3	5.8	6.0	4.5	4.3	3.5	3.3
	64	75	80	73	79	103	177	274
W(X)	4.0	2.6	1.6	2.0	2.0	1.0	0.6-	0.3
	19.7	15.3	15.8	19.7	15.3	15.8	13.6	16.6
	12.0-	12.0-	18.5-	15.6-	6.8-	12.8-	13.5-	12.0-
	6.0	6.5	6.0	6.2	4.5	4.3	4.7	5.1
W(Y)	0.9	0.6-	0.3-	0.4	3.0	4.3	2.7	0.3
	13.8	13.6	23.1	12.8	17.6	20.7	16.0	15.3
	12.6-	13.3-	24.5-	21.6-	19.3-	15.8-	15.3-	15.3-
	5.5	5.5	8.7	8.0	6.5	7.1	7.0	5.0

FEBRUARY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	14.3	14.5	15.0	15.5	16.6	16.7	16.6	14.7
	19.0	19.0	20.0	21.0	21.0	21.0	22.0	20.0
	11.5	10.6	10.5	10.0	12.0	12.0	12.0	10.5
	1.7	1.7	1.8	2.5	2.1	1.7	1.3	2.0
	33	57	54	54	78	89	150	259
T(W)-T(A)	4 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	1.0	1.5	1.5	1.3	1.3	1.2	0.9	1.0
	4.3	5.0	4.5	7.0	6.5	5.5	6.0	5.8
	2.0-	3.0-	3.1-	4.1-	2.8-	3.8-	4.3-	4.3-
	1.6	1.7	1.7	2.5	2.0	1.7	1.5	2.0
	31	55	49	47	73	83	141	254
E(W)-E(A)	4 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	4.2	5.1	4.5	3.6	3.5	4.0	3.5	3.6
	8.6	9.3	8.8	9.2	11.1	11.2	11.0	9.7
	2.0-	0.7-	0.8-	1.8-	1.8-	3.8-	2.8-	3.2-
	2.7	2.1	2.5	3.0	3.3	2.7	2.5	2.5
	31	55	48	47	73	82	137	245
EA	4 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	12.2	12.0	12.8	14.3	15.8	15.2	15.2	13.2
	16.7	16.5	19.5	21.2	21.5	21.5	20.0	19.5
	9.0	7.2	7.0	7.7	7.0	7.8	7.8	8.1
	2.0	2.0	2.5	3.5	3.2	2.5	2.2	2.5
	31	55	48	47	73	82	137	245
C	3 2	3 3	3 3	3 3	2 3	3 3	2 3	3 2
	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.1	0.1	0.3	0.0	0.1	0.0
	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
	32	56	54	52	74	87	144	260
P	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	21.3	21.6	20.2	19.0	18.8	19.1	20.0	22.6
	30.6	29.5	29.5	28.6	28.6	34.0	34.0	36.0
	5.0	6.0	5.0	2.7	2.5	1.0	3.0	1.7-
	5.3	5.2	5.7	5.6	5.0	8.1	7.6	6.7
	33	57	55	54	78	89	146	264
W	3 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	9.0	7.7	8.3	9.3	11.7	9.3	8.5	7.1
	15.3	17.0	29.8	28.2	23.1	18.0	20.5	18.0
	2.5	0.0	0.0	1.0	0.0	3.0	1.0	0.0
	2.5	3.5	5.0	4.8	4.0	3.3	3.3	3.2
	33	58	55	53	78	89	149	258
W(X)	0.1	0.4-	2.7-	1.7-	4.5-	4.0-	3.8-	3.0-
	8.6	16.1	13.3	8.6	8.6	13.8	12.0	12.7
	9.5-	10.0-	15.1-	11.6-	17.0-	13.5-	11.6-	9.5-
	5.2	5.6	5.5	4.0	5.7	5.0	5.0	3.7
W(Y)	0.5-	2.0-	4.3-	5.0-	1.7-	0.3-	2.5	0.4
	14.5	9.6	10.6	10.0	15.5	14.1	17.6	15.5
	12.6-	15.1-	29.8-	28.2-	21.7-	17.1-	14.5-	17.0-
	7.7	6.0	6.1	8.1	9.8	7.6	6.0	6.7

LATITUDE 30° – 35° N.

MARCH 1965

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)			3 2	3 3	3 3	3 3	2 3	3 2
			15.5	16.0	17.1	16.8	16.3	14.0
			21.0	22.6	22.6	22.0	23.0	22.0
			12.0	13.0	13.0	12.2	12.0	9.2
			2.0	1.6	1.7	1.5	1.6	1.6
	0	0	48	60	74	94	182	294
T(W)-T(A)			3 3	3 3	3 3	3 3	2 3	3 2
			0.9	0.8	0.5	0.9	0.9	1.2
			3.8	3.0	5.0	7.0	4.1	7.0
			6.6-	5.0-	6.5-	4.2-	4.2-	6.5-
			2.0	1.5	1.8	2.0	1.5	1.8
	0	0	41	57	66	88	175	288
E(W)-E(A)			3 3	3 3	3 3	3 3	2 3	3 2
			3.5	2.5	2.5	4.0	4.3	4.5
			12.5	9.5	10.5	11.0	9.0	10.5
			4.8-	1.8-	2.8-	3.1-	2.0-	2.2-
			3.3	2.3	2.6	3.0	2.3	2.0
	0	0	41	57	63	76	170	287
EA			3 3	3 3	3 3	3 3	2 3	3 2
			13.8	15.5	16.3	15.0	14.0	11.8
			20.1	20.8	20.5	23.3	20.8	19.3
			7.3	9.6	10.0	9.3	8.6	7.6
			2.8	2.5	2.5	2.8	2.3	1.6
	0	0	41	57	63	76	170	287
C			3 2	3 3	3 3	3 3	2 3	3 2
			0.7	0.8	0.8	0.7	0.7	0.7
			1.0	1.0	1.0	1.0	1.0	1.0
			0.0	0.0	0.0	0.0	0.0	0.0
			0.3	0.2	0.3	0.3	0.3	0.3
	0	0	47	59	67	94	179	295
P			3 2	3 3	3 3	3 3	2 3	3 2
			15.7	14.2	18.0	21.5	22.3	21.0
			28.0	25.0	28.2	32.0	31.6	31.6
			2.5	3.0-	7.0	9.6	8.0	2.0
			6.3	6.5	4.6	4.6	4.7	6.5
	0	0	49	63	73	94	180	294
W			3 2	3 3	3 3	3 3	2 3	3 2
			10.0	8.1	7.7	6.5	7.3	6.7
			17.8	18.0	13.8	15.3	19.5	23.1
			2.5	1.0	0.0	0.0	0.0	0.0
			3.5	3.6	3.3	3.5	3.5	4.0
	0	0	50	63	74	94	178	288
W(X)			1.8	0.6-	2.5-	2.5-	2.3-	0.9
			15.1	9.6	9.8	12.5	11.6	19.3
			9.3-	11.6-	12.8-	11.1-	12.6-	9.0-
			6.2	5.0	5.0	4.8	4.6	5.1
W(Y)			1.7-	0.5-	1.7	0.4	0.7-	3.5-
			17.8	14.5	12.8	15.1	12.0	10.1
			14.1-	13.8-	13.0-	12.5-	19.5-	15.6-
			8.1	7.5	6.1	5.0	6.1	4.6

APRIL 1965

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	15.3	15.8	16.0	16.5	16.5	16.2	16.1	14.7
	22.6	22.0	19.5	28.1	24.0	22.0	20.5	20.5
	10.0	11.0	11.0	13.1	12.0	9.2	11.0	11.0
	2.5	2.1	1.8	2.3	2.0	2.0	1.8	1.7
	63	97	78	79	101	111	172	248
T(W)-T(A)	4 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.4	0.4	0.6	0.8	1.0	1.1	1.0	0.6
	4.7	4.5	5.0	5.5	4.5	6.5	6.6	6.1
	5.0-	5.0-	4.5-	8.1-	5.0-	4.0-	4.0-	5.6-
	2.1	1.7	2.0	2.0	1.8	2.1	1.8	2.0
	61	96	76	79	99	109	169	243
E(W)-E(A)	4 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	2.7	2.8	3.0	3.7	4.8	4.2	4.6	3.5
	9.6	10.0	10.0	11.2	11.6	11.5	11.0	9.1
	3.1-	4.6-	5.0-	7.5-	5.2-	3.7-	1.5-	3.0-
	3.5	2.8	3.3	3.3	3.1	3.0	2.6	2.6
	59	94	75	76	99	102	165	240
EA	4 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	14.0	14.5	14.8	14.6	14.1	14.1	13.8	13.0
	20.6	20.0	21.0	29.5	22.2	23.3	20.8	19.0
	7.5	7.5	9.0	8.8	8.7	9.1	7.8	7.0
	3.6	3.0	3.1	3.5	3.1	2.6	2.6	2.5
	59	94	75	76	99	102	165	240
C	4 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3
	67	98	79	78	100	111	167	245
P	4 2	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	22.7	22.8	21.8	24.8	25.0	25.2	23.0	21.0
	32.0	35.7	35.0	35.5	35.5	35.0	31.0	31.5
	6.0	5.6	2.2	3.5	4.0	7.0	6.0	7.6
	7.1	8.6	9.2	7.5	7.1	6.0	6.0	5.8
	67	99	78	80	99	106	165	244
W	4 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2
	7.6	7.0	7.5	6.6	7.0	7.0	7.2	7.5
	18.5	17.0	18.0	12.8	18.0	18.0	18.0	19.0
	0.0	0.0	1.5	0.0	1.0	1.0	0.0	0.0
	3.6	3.0	3.3	2.7	3.0	3.2	3.5	3.8
	66	98	76	80	101	111	169	246
W(X)	2.0-	2.5-	2.8-	3.2-	1.6-	0.4-	0.4-	1.7
	7.0	12.8	9.5	10.2	10.2	10.2	13.2	14.6
	18.2-	16.7-	16.0-	10.6-	15.5-	9.7-	10.0-	7.7-
	4.7	5.2	5.3	4.7	4.6	4.2	4.7	4.3
W(Y)	1.1	1.2	0.6	0.8-	1.5-	2.3-	2.6-	3.0-
	13.8	10.5	13.0	12.3	11.2	11.1	14.1	16.5
	13.0-	12.8-	13.5-	9.0-	13.0-	17.7-	17.7-	18.0-
	6.5	5.0	5.5	4.2	5.5	6.0	6.0	6.2

MAY 1965

LONGITUDE WEST

	170	165	160	155	150	145	140	135	130
T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	16.5	16.7	17.8	18.3	18.3	17.8	17.0	15.2	
	28.1	21.6	24.2	24.2	26.0	23.7	23.7	23.0	
	13.0	12.0	13.7	15.5	13.1	14.2	13.1	11.0	
	2.3	1.8	1.8	1.7	1.8	1.8	1.8	1.8	
	79	128	111	110	127	129	185	248	
T(W)-T(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.7	0.7	0.1	0.2-	0.1-	0.4	1.0	1.0	
	5.0	5.5	4.0	3.8	3.3	4.3	5.5	6.6	
	11.0-	3.0-	7.0-	6.0-	6.0-	4.0-	6.6-	6.0-	
	2.1	1.5	1.8	1.7	1.7	1.7	1.8	1.8	
	79	127	111	107	126	128	180	243	
E(W)-E(A)	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	3.2	3.0	2.3	1.6	2.2	3.6	5.0	4.2	
	10.0	11.3	10.3	7.2	9.1	11.1	9.5	9.5	
	3.2-	2.5-	3.8-	5.5-	2.7-	1.8-	2.5-	3.1-	
	2.8	2.8	2.7	2.6	2.5	2.6	2.3	2.6	
	79	127	110	106	125	124	178	240	
EA	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	15.0	15.7	17.0	17.8	17.5	15.8	14.5	13.2	
	22.6	20.8	23.3	26.1	23.5	22.8	21.1	21.2	
	8.8	8.6	9.2	11.6	11.1	9.0	9.6	7.0	
	3.0	2.7	2.8	2.8	2.6	2.7	2.5	2.5	
	79	127	110	106	125	124	178	240	
C	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	0.8	0.7	0.7	0.6	0.6	0.6	0.7	0.9	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	
	80	127	108	110	125	129	185	239	
P	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	21.3	21.1	21.5	22.8	24.7	26.7	26.5	26.2	
	29.5	30.0	32.0	32.7	35.0	35.5	36.7	34.7	
	10.6	11.0	12.0	10.0	10.5	17.0	6.0	19.0	
	4.1	4.3	5.0	5.8	5.8	4.5	4.3	3.5	
	82	127	110	106	122	121	178	239	
W	3 2	3 3	3 3	3 3	3 3	3 3	3 3	3 2	
	6.6	7.0	6.7	6.2	6.6	6.1	5.1	5.8	
	16.5	13.8	12.8	13.3	21.0	11.2	12.8	14.3	
	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	
	3.1	2.5	2.5	2.7	3.2	2.5	2.2	2.5	
	82	128	112	112	125	124	174	242	
W(X)	0.5-	0.6-	0.4	1.7-	2.1-	2.5-	2.3-	1.0-	
	11.6	9.0	10.5	10.2	9.3	7.1	8.6	6.0	
	12.5-	8.7-	9.0-	10.1-	15.3-	10.7-	10.0-	7.7-	
	4.5	4.3	5.2	4.1	4.1	3.8	3.6	2.8	
W(Y)	1.8-	1.7-	1.0	3.3	2.8	1.5	0.6-	4.5-	
	10.0	12.0	10.6	12.6	20.7	11.0	12.0	4.7	
	15.3-	12.0-	10.5-	5.0-	5.7-	10.0-	8.6-	14.3-	
	5.5	5.6	4.8	3.7	5.0	4.5	3.5	3.3	

JUNE 1965

LONGITUDE WEST

	170	165	160	155	150	145	140	135	130
T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	19.7	20.3	20.6	20.2	20.2	19.5	18.5	16.8	
	25.0	25.5	26.5	25.5	25.5	25.0	24.2	24.5	
	13.7	15.0	15.7	15.5	17.0	16.0	14.2	12.6	
	2.5	2.2	1.8	2.0	1.5	1.7	1.6	1.5	
	63	79	75	76	96	112	144	225	
T(W)-T(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	0.5	0.6	0.9	1.0	0.9	1.0	1.1	0.5	
	5.5	6.0	4.6	5.5	5.0	5.5	5.1	5.0	
	4.5-	4.3-	3.2-	3.3-	4.2-	4.7-	4.2-	8.5-	
	1.7	1.8	1.6	1.8	1.7	1.7	1.5	1.6	
	62	79	75	75	92	108	144	220	
E(W)-E(A)	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	3.0	3.2	4.5	4.8	5.1	5.5	5.0	3.5	
	8.7	10.3	12.1	11.7	14.0	18.0	16.0	9.2	
	3.1-	1.7-	3.7-	2.7-	4.1-	2.1-	0.4	5.0-	
	3.0	2.8	3.5	3.1	3.0	3.5	2.3	2.3	
	60	78	70	71	87	104	144	220	
EA	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	19.5	20.1	19.5	18.7	18.3	17.0	16.5	15.1	
	27.1	25.7	26.0	25.5	25.6	24.0	26.1	22.6	
	10.3	11.0	9.6	11.6	12.5	10.5	9.7	11.3	
	4.0	3.5	3.2	3.0	2.6	2.8	2.5	2.0	
	60	78	70	71	87	104	144	220	
C	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	0.7	0.7	0.5	0.7	0.7	0.7	0.7	0.7	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	59	82	72	76	96	111	143	222	
P	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	22.1	23.0	23.8	24.6	25.8	25.5	25.3	23.3	
	28.0	27.5	29.6	32.5	34.1	34.5	33.0	29.5	
	12.5	14.7	13.5	15.0	15.7	15.5	18.0	7.0	
	3.1	2.5	2.7	3.3	3.5	3.8	2.7	2.8	
	61	79	71	77	92	109	143	221	
W	3 3	3 3	3 3	3 3	3 3	3 3	2 3	3 2	
	5.7	5.6	5.0	4.6	5.2	5.6	5.8	6.3	
	12.8	13.3	12.8	10.2	10.7	12.8	12.8	13.8	
	0.7	0.0	1.0	0.0	1.0	0.0	1.3	1.0	
	2.7	2.8	2.5	2.5	2.5	2.7	2.3	2.6	
	62	79	73	75	90	109	140	222	
W(X)	2.5	1.5	0.2	0.7	0.9-	1.0-	1.3-	0.1	
	9.7	12.6	12.0	9.5	7.7	12.0	10.0	10.6	
	6.5-	7.5-	9.2-	9.6-	10.0-	10.5-	10.5-	9.7-	
	3.8	4.1	3.8	3.7	4.5	5.0	4.0	3.2	
W(Y)	1.2	1.6	1.2	0.2	0.3-	0.8-	3.3-	5.1-	
	9.1	10.2	8.1	9.0	10.5	8.6	6.7	5.2	
	8.1-	7.7-	10.2-	9.2-	9.0-	7.5-	9.6-	13.1-	
	4.2	4.0	3.7	3.6	3.5	3.7	3.2	3.2	

LATITUDE 25°- 30° N.

JULY 1963

LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	25.0	24.3	23.3	22.5	22.6	21.5	20.5	20.0
	26.5	27.0	26.5	27.0	30.0	28.7	25.5	22.6
	23.7	22.6	21.5	20.5	20.0	18.7	18.5	17.6
	0.9	1.0	1.5	1.6	1.5	1.5	1.0	1.0
	22	21	16	18	113	173	121	58
T(W)-T(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	0.3-	0.2	0.6	1.0	0.7	0.7	0.7	0.4
	2.0	2.0	3.3	3.5	4.0	5.5	5.5	2.3
	7.7-	4.5-	1.5-	1.1-	6.7-	6.6-	4.2-	2.2-
	2.3	1.6	1.2	1.1	1.5	1.6	1.1	1.0
	20	18	15	15	111	171	121	58
E(W)-E(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	4.1	4.5	5.5	4.6	5.8	5.6	5.3	5.3
	9.2	7.6	9.1	9.0	12.3	13.7	12.0	9.6
	4.8-	3.0-	3.6	1.2	2.5-	3.5-	1.2	1.0
	4.7	2.8	1.5	2.1	2.5	2.6	2.0	2.0
	19	17	15	15	111	171	121	58
EA	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	25.2	24.5	22.5	22.5	21.1	19.8	18.1	17.0
	33.1	27.1	26.8	26.8	30.1	28.3	24.2	20.8
	21.5	22.0	19.1	17.8	15.2	14.5	12.8	12.7
	2.7	1.5	2.2	2.5	2.3	2.3	1.6	2.0
	19	17	15	15	111	171	121	58
C	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	0.6	0.5	0.5	0.7	0.7	0.8	0.8	0.8
	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.3	0.1	0.1	0.0	0.1
	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3
	22	21	15	19	113	172	122	58
P	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	20.0	22.0	23.7	23.6	22.0	22.6	22.3	21.0
	23.5	24.5	26.1	28.0	27.6	27.2	26.8	25.5
	16.5	19.1	20.0	21.0	10.6	18.0	16.1	16.7
	1.7	1.5	1.6	2.5	2.1	1.6	1.8	1.7
	22	21	16	19	110	167	112	52
W	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	7.8	6.5	6.8	6.5	7.5	7.3	6.5	6.0
	12.8	11.7	9.2	12.3	11.7	15.3	13.3	12.8
	3.5	3.0	5.0	3.0	1.5	0.0	0.0	1.0
	2.8	2.0	1.3	2.5	2.2	2.7	2.7	2.6
	22	21	16	19	115	174	120	58
W(X)	6.5-	5.6-	6.6-	6.0-	6.7-	5.8-	5.0-	2.5-
	0.1-	3.0-	3.8-	1.7-	0.0	6.7	2.8	10.2
	12.8-	8.7-	9.2-	12.0-	11.0-	13.2-	11.0-	9.7-
	3.5	1.7	1.5	2.5	2.5	3.5	3.0	3.6
W(Y)	1.8	1.8	0.2	1.8-	2.5-	2.8-	3.5-	4.3-
	8.8	9.0	2.8	0.0	3.0	7.0	3.0	0.1
	5.1-	0.6-	3.2-	5.1-	8.2-	8.7-	10.2-	9.6-
	3.5	2.5	1.5	1.6	2.0	2.3	2.2	2.3

AUGUST 1963

LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	25.3	25.1	24.1	23.0	23.0	22.5	21.7	20.5
	28.0	28.0	26.0	24.5	27.6	27.6	26.5	25.5
	23.0	22.6	22.0	21.0	21.0	18.7	18.1	16.5
	1.0	1.3	1.0	1.0	1.1	1.3	1.5	1.5
	24	34	19	14	115	170	142	85
T(W)-T(A)	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	1.1	1.0	1.5	2.0	0.9	0.6	0.4	0.5
	5.0	5.0	3.8	5.0	4.5	5.0	3.8	4.1
	2.5-	2.2-	0.4-	0.6-	4.5-	7.1-	5.0-	4.5-
	1.6	1.7	1.1	1.6	1.5	1.6	1.3	1.7
	24	34	19	14	115	169	139	83
E(W)-E(A)	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	7.1	6.6	7.6	8.3	6.7	6.2	6.0	5.5
	15.6	12.0	13.0	14.2	13.2	13.5	12.5	13.0
	1.0	5.7-	3.7	3.2	3.3-	2.5-	0.9-	3.0-
	3.6	3.5	3.0	3.3	2.2	2.3	2.2	2.6
	24	34	19	14	115	169	139	83
EA	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	25.6	25.5	23.5	21.5	21.1	20.1	19.0	18.0
	29.8	33.5	26.8	23.8	31.0	29.1	25.0	26.3
	21.1	21.6	20.3	18.0	17.5	16.3	14.8	13.7
	2.5	2.2	1.8	1.5	1.8	1.8	2.0	2.2
	24	34	19	14	115	169	139	83
C	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	0.4	0.6	0.5	0.6	0.6	0.6	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	24	34	20	13	114	175	142	87
P	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	17.5	18.1	20.3	21.2	21.0	22.0	22.5	21.7
	20.5	21.1	23.0	24.0	26.0	28.0	27.5	25.5
	11.2	14.5	17.1	18.0	12.5	17.5	16.5	18.0
	2.0	1.5	1.5	1.6	1.7	2.0	1.8	1.5
	24	34	17	13	110	169	137	83
W	2 3	3 3	3 2	3 3	2 3	3 3	4 4	4 3
	5.0	5.5	6.5	8.0	6.5	6.0	5.2	6.3
	12.8	10.2	10.2	12.8	11.7	11.2	11.7	12.3
	1.0	2.0	2.5	3.0	0.0	0.0	0.0	1.0
	3.1	2.3	2.0	2.3	2.5	2.5	2.5	3.0
	23	33	20	14	113	170	136	87
W(X)	3.0-	4.0-	5.1-	6.8-	6.1-	5.1-	4.3-	4.0-
	6.2	6.6	2.2-	2.8-	1.5	5.8	2.5	3.5
	7.1-	9.0-	10.0-	12.0-	11.7-	11.2-	11.7-	11.5-
	3.5	3.3	2.0	2.5	2.5	3.1	3.0	3.1
W(Y)	1.5	1.0	2.2	2.0	0.0	1.1-	1.5-	4.0-
	12.6	7.7	9.5	9.5	6.5	5.0	7.6	2.0
	1.5-	6.3-	1.8-	2.1-	4.3-	6.0-	7.2-	8.0-
	3.5	2.7	3.0	3.5	2.0	2.0	2.0	2.3

LATITUDE 25° - 30° N.

SEPTEMBER 1963

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	2 3 26.1 30.0 22.0 1.5 29	3 3 25.5 29.2 21.5 1.3 39	3 3 24.7 27.5 22.5 1.0 50	3 2 24.8 27.6 22.1 1.1 28	2 3 24.0 28.1 22.0 1.0 109	3 3 23.1 27.0 19.6 1.1 170	4 4 22.7 27.6 21.0 1.1 140	4 3 22.0 26.0 19.8 1.0 79	
T(W)-T(A)	2 3 0.6 3.5 2.3- 1.5 25	3 3 0.6 4.5 6.0- 2.0 36	3 3 1.1 5.2 1.8- 1.1 50	3 2 0.7 3.2 2.1- 1.1 26	2 3 1.0 3.6 3.2- 1.3 109	3 3 1.0 4.0 3.2- 1.3 170	4 4 0.8 4.5 4.5- 1.3 139	4 3 0.7 4.2 6.5- 1.7 79	
E(W)-E(A)	2 3 7.2 12.0 0.3 3.0 24	3 3 6.0 11.2 0.1- 2.7 36	3 3 7.7 15.2 3.5 2.5 50	3 2 5.1 10.5 12.0- 4.0 26	2 3 7.1 16.3 0.8 2.8 108	3 3 6.5 14.2 0.5 2.8 166	4 4 6.0 13.7 8.6- 3.0 136	4 3 5.5 11.0 2.0- 2.8 79	
EA	2 3 26.0 32.3 20.5 2.5 24	3 3 26.0 31.6 21.8 2.2 36	3 3 23.7 28.0 15.6 2.5 50	3 2 25.6 42.7 19.1 4.0 26	2 3 23.0 27.6 13.3 2.5 108	3 3 22.0 27.1 14.8 2.5 166	4 4 21.3 36.6 14.7 2.6 136	4 3 20.5 28.0 16.2 2.2 79	
C	3 3 0.5 1.0 0.1 0.3 31	3 3 0.4 0.9 0.0 0.2 36	3 3 0.5 1.0 0.0 0.3 53	3 2 0.5 1.0 0.1 0.3 30	2 3 0.5 1.0 0.0 0.3 112	3 3 0.5 1.0 0.0 0.3 170	4 4 0.5 1.0 0.0 0.3 140	4 3 0.5 1.0 0.0 0.3 79	
P	3 3 19.0 22.5 13.5 2.1 31	3 3 19.7 23.2 13.5 2.2 38	3 3 20.0 26.6 15.0 2.2 53	3 2 17.8 26.6 14.0 3.0 30	2 3 17.7 22.0 13.5 1.8 109	3 3 17.6 22.5 10.6 2.5 160	4 4 17.8 22.7 10.5 2.6 132	4 3 16.7 22.5 11.0 2.8 70	
W	3 3 5.5 10.2 1.5 2.3 30	3 3 6.8 11.2 2.0 2.3 38	3 3 6.1 12.3 0.0 2.8 51	3 2 4.5 9.2 0.0 2.8 29	2 3 5.1 13.5 0.0 3.0 106	3 3 5.5 14.3 0.0 3.0 164	4 4 5.1 17.0 0.0 2.7 133	4 3 4.5 10.2 0.0 2.3 66	
W(X)	4.1- 5.0 9.5- 3.6	4.8- 5.2 10.6- 4.0	5.0- 2.6 9.6- 3.5	2.5- 5.0 8.7- 4.0	3.3- 5.0 13.5- 3.5	2.3- 6.6 14.1- 4.3	1.2- 6.6 10.7- 4.0	0.3- 5.8 7.6- 3.1	
W(Y)	0.5 5.8 3.5- 2.3	0.4- 5.5 7.3- 3.5	0.6- 4.5 8.7- 2.7	1.6- 2.0 6.0- 2.0	2.0- 4.3 8.3- 2.5	2.0- 9.0 10.2- 3.3	1.1- 8.0 13.0- 3.8	0.8- 9.6 9.0- 4.0	

OCTOBER 1963

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	4 3 25.3 28.5 23.0 1.2 33	4 3 24.8 28.0 22.0 1.0 54	4 3 24.0 26.0 21.0 1.1 39	4 3 23.5 26.5 21.0 1.1 37	2 3 23.2 28.1 19.6 1.5 144	3 3 22.0 25.7 18.1 1.2 193	4 4 21.5 25.5 17.0 1.1 135	4 3 20.7 26.0 16.2 1.5 84	
T(W)-T(A)	4 3 1.3 4.0 1.5- 1.3 32	4 3 1.5 3.6 1.3- 1.1 53	4 3 1.1 4.2 1.5- 1.2 38	4 3 0.9 3.0 2.0- 1.0 36	2 3 1.2 12.0 5.0- 1.8 140	3 3 1.6 4.8 2.5- 1.3 192	4 4 1.5 4.8 2.1- 1.2 135	4 3 1.5 5.7 1.6- 1.5 80	
E(W)-E(A)	4 3 7.5 15.5 0.6 3.0 31	4 3 7.5 16.5 2.0- 3.6 53	4 3 7.0 9.8 2.6 1.8 38	4 3 6.5 10.2 2.3- 2.5 36	2 3 8.0 35.7 0.1- 3.6 140	3 3 8.0 15.8 2.0 2.7 192	4 4 7.5 13.0 1.0 2.2 134	4 3 7.0 12.5 1.0- 2.3 80	
EA	4 3 25.5 32.8 22.0 2.2 31	4 3 24.7 33.5 17.8 3.0 53	4 3 23.2 28.2 19.8 1.8 38	4 3 22.2 26.1 18.8 1.8 36	2 3 21.0 26.7 14.3 2.5 140	3 3 19.5 26.7 12.0 2.5 192	4 4 18.7 25.5 14.3 2.2 134	4 3 18.5 25.0 13.3 2.3 80	
C	4 3 0.5 1.0 0.1 0.3 36	4 3 0.5 1.0 0.0 0.3 58	4 3 0.5 1.0 0.0 0.3 41	4 3 0.5 1.0 0.0 0.3 37	2 3 0.5 1.0 0.0 0.3 145	3 3 0.5 1.0 0.0 0.3 193	4 4 0.5 1.0 0.0 0.3 136	4 3 0.6 1.0 0.0 0.3 87	
P	4 3 20.5 28.6 12.0 3.3 36	4 3 19.8 27.6 10.6 3.2 57	4 3 21.2 29.6 11.5 3.5 38	4 3 22.0 28.6 15.5 3.0 35	2 3 20.2 28.6 11.7 2.6 132	3 3 20.3 29.5 12.0 2.8 185	4 4 21.2 30.0 12.0 2.6 131	4 3 20.2 26.6 11.5 2.8 84	
W	4 3 6.0 11.7 1.0 3.0 34	4 3 5.8 12.8 0.0 3.5 58	4 3 5.3 13.8 0.0 3.6 41	4 3 6.1 11.2 0.0 2.7 33	2 3 6.1 12.8 1.0 2.5 139	3 3 5.7 13.8 0.0 2.7 188	4 4 5.2 10.5 0.0 2.2 135	4 3 5.5 12.8 0.0 2.5 85	
W(X)	2.8- 4.8 10.0- 3.7	2.8- 6.2 12.0- 4.5	3.5- 6.2 13.0- 4.5	4.3- 6.7 11.2- 4.0	4.0- 11.0 10.5- 4.0	3.0- 10.1 13.0- 4.0	3.3- 6.0 9.7- 3.0	2.2- 5.7 8.0- 3.0	
W(Y)	1.3 11.2 5.5- 4.5	0.9 11.1 6.6- 4.0	0.8- 8.1 6.6- 2.8	1.8- 2.3 8.0- 2.5	1.5- 7.5 12.8- 3.3	1.5- 8.0 9.8- 3.5	1.6- 5.5 9.6- 3.0	3.0- 7.5 12.8- 3.6	

LATITUDE 25° – 30° N.

NOVEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	22.0	21.6	21.6	21.8	21.7	21.2	20.5	19.8
	27.0	26.7	25.0	25.5	26.0	27.6	26.0	27.0
	18.7	18.1	17.6	19.2	16.0	18.1	17.6	16.5
	1.8	1.6	1.7	1.3	1.6	1.5	1.2	1.3
	42	63	52	54	123	172	142	89
T(W)-T(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	2.0	2.3	2.0	1.3	1.6	1.2	1.2	1.5
	5.0	8.2	5.5	4.5	7.7	5.0	4.5	5.5
	4.0-	2.0-	1.0-	2.0-	2.0-	5.0-	2.0-	5.3-
	1.7	1.7	1.5	1.5	1.5	1.5	1.2	1.5
	41	62	52	53	122	168	140	86
E(W)-E(A)	4 2	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	7.5	8.5	8.0	5.8	7.6	7.0	6.5	6.7
	15.6	17.5	17.5	14.5	16.5	14.3	12.6	12.7
	0.7-	2.1-	0.1	0.8-	0.3-	0.7-	0.6-	1.1
	4.1	4.0	4.3	3.8	3.5	3.0	2.7	2.7
	35	54	41	45	115	160	131	81
EA	4 2	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	21.0	19.7	19.3	21.0	19.6	19.0	18.1	17.3
	28.6	27.6	26.7	26.7	25.0	25.3	25.7	23.2
	13.2	12.8	12.2	11.5	10.1	12.7	12.0	11.3
	4.2	4.0	4.3	3.5	3.3	2.7	3.0	2.5
	35	54	41	45	115	160	131	81
C	4 2	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	39	62	49	55	124	176	143	88
P	4 2	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	16.1	18.2	18.7	19.0	19.8	21.0	21.5	21.1
	29.5	29.5	28.6	25.2	28.2	28.0	30.0	30.0
	0.0	5.0	9.0	9.0	8.2	5.5	7.7	12.0
	9.0	5.6	4.2	3.5	3.5	4.0	4.8	4.0
	39	59	48	52	118	167	139	84
W	4 2	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	8.8	7.5	7.0	6.1	6.8	6.2	5.6	6.0
	18.0	15.3	13.8	18.0	34.0	20.5	13.8	19.0
	3.0	0.0	1.5	0.0	0.5	0.0	0.0	0.0
	3.2	3.2	2.8	4.0	4.2	3.0	2.6	2.8
	38	59	47	50	111	173	142	87
W(X)	0.5-	0.2	0.1-	0.1-	2.5-	1.5-	1.0-	0.4-
	11.6	12.0	8.6	11.5	12.8	10.7	13.6	10.7
	12.8-	10.0-	9.7-	7.8-	33.5-	15.6-	13.0-	8.1-
	7.3	5.7	4.7	4.6	5.2	4.3	4.1	4.6
W(Y)	0.1	1.6-	0.3-	2.0	1.0-	0.4-	0.6	1.3-
	14.5	13.0	13.0	14.5	15.3	16.6	13.8	8.6
	13.6-	11.6-	10.0-	8.5-	18.0-	15.3-	9.2-	19.0-
	6.0	5.5	5.7	5.2	5.3	5.1	4.5	4.5

DECEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	19.5	19.7	19.5	20.3	21.2	20.7	19.7	19.0
	24.2	22.6	24.2	23.1	24.2	25.5	23.5	23.0
	15.0	15.0	14.2	14.2	15.0	16.5	16.5	15.0
	2.0	1.7	2.1	2.0	1.6	1.3	1.2	1.3
	74	91	91	88	168	215	164	87
T(W)-T(A)	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	2.1	2.2	2.5	2.0	1.2	1.2	1.2	1.5
	8.0	5.5	6.1	6.0	6.0	5.0	5.5	5.0
	3.7-	1.1-	1.6-	1.0-	3.0-	3.0-	2.1-	1.6-
	2.1	1.6	1.6	1.6	1.5	1.3	1.5	1.5
	69	88	85	86	166	212	161	82
E(W)-E(A)	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	7.3	8.0	7.3	5.7	5.5	6.1	5.6	5.8
	15.2	17.0	15.0	15.1	16.8	14.0	12.7	12.6
	0.5-	0.9-	0.5	1.3-	1.3-	1.5-	1.5-	0.7
	3.8	4.0	3.5	3.5	3.1	3.2	2.7	3.0
	69	87	85	86	166	211	161	82
EA	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	17.1	17.0	17.7	19.6	20.1	18.8	17.7	16.6
	25.7	27.5	25.7	25.7	25.5	25.7	23.0	20.5
	10.5	11.0	10.6	12.5	12.0	11.3	11.8	11.1
	3.3	3.6	3.5	3.3	2.8	2.8	2.3	2.3
	69	87	85	86	166	211	161	82
C	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	0.7	0.6	0.7	0.7	0.7	0.6	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	75	89	89	87	165	212	163	86
P	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	12.7	13.5	12.0	12.7	16.3	18.8	20.2	21.1
	23.5	22.0	20.5	21.0	24.5	25.5	26.5	27.5
	1.0	0.6	5.8-	0.0	0.0	1.0	1.5	2.0
	5.7	5.0	5.5	4.5	4.5	4.3	4.0	5.0
	74	88	85	87	167	213	163	87
W	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3
	9.1	8.0	9.6	8.2	8.0	6.8	5.8	5.8
	24.6	16.5	25.6	20.5	24.1	20.5	17.5	14.3
	0.0	0.0	2.0	0.0	0.0	0.0	0.0	1.0
	4.5	3.3	4.5	4.2	3.6	3.5	3.0	2.7
	76	92	90	90	168	214	161	86
W(X)	6.2	4.8	5.8	5.0	0.9	0.3-	0.8-	1.6-
	24.6	14.5	24.2	19.2	21.0	19.3	11.0	8.1
	2.6-	8.1-	9.7-	5.0-	9.0-	12.0-	11.5-	9.7-
	5.0	4.0	6.0	5.0	5.5	5.5	4.1	3.5
W(Y)	0.7	0.2-	1.0-	2.7	4.3	3.0	2.5	1.5
	14.5	16.5	11.2	15.1	16.5	18.0	16.5	14.3
	11.6-	13.6-	19.2-	12.0-	12.5-	12.0-	8.1-	6.6-
	6.3	6.0	6.5	5.3	5.1	4.5	4.3	5.0

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	LONGITUDE WEST 170	165	160	155	150	145	140	135	130
T(A)	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	19.3	19.6	19.8	19.8	20.0	19.5	18.5	17.6	
	25.0	25.5	25.5	25.0	23.0	24.2	23.1	22.0	
	15.0	16.0	15.5	16.0	14.0	14.7	15.2	15.0	
	1.7	1.7	1.7	1.5	1.6	1.7	1.3	1.3	
	65	81	67	87	140	182	153	116	
T(W)-T(A)	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	0.5	0.7	0.7	1.0	1.3	1.5	1.5	1.5	
	4.0	4.3	5.0	4.0	8.8	7.6	5.5	5.0	
	3.5-	7.2-	3.3-	3.2-	2.5-	5.0-	2.5-	2.0-	
	1.5	1.7	1.6	1.6	1.7	1.8	1.3	1.5	
	59	77	65	84	136	179	151	116	
E(W)-E(A)	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	3.8	4.3	3.7	4.0	6.0	6.1	6.5	6.2	
	10.1	11.1	10.0	11.5	18.5	14.1	12.5	12.3	
	1.1-	2.1-	0.9-	0.7-	2.8-	3.0-	1.1-	0.5-	
	3.0	3.0	2.7	3.0	3.3	2.7	2.6	2.3	
	48	71	59	76	129	171	144	107	
EA	4 2	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	17.7	18.2	19.0	19.0	18.1	17.3	15.5	14.5	
	25.5	25.7	24.8	23.7	25.3	24.2	23.3	20.0	
	10.3	12.0	11.7	12.2	9.0	9.1	10.5	10.1	
	3.0	3.1	2.8	2.7	3.1	2.6	2.2	2.0	
	48	71	59	76	129	171	144	107	
C	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.7	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	
	63	82	67	88	142	184	153	118	
P	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	20.1	20.8	21.5	22.6	23.5	24.8	26.0	25.7	
	34.0	33.5	35.5	32.0	28.6	30.5	32.0	31.7	
	7.0	10.5	10.0	2.0	2.1	15.7	18.5	16.7	
	5.5	4.5	4.8	4.8	3.6	2.5	2.5	3.1	
	65	83	66	90	141	182	154	118	
W	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	7.7	6.7	6.2	7.5	7.5	7.0	7.0	6.7	
	18.0	15.3	12.8	15.3	16.5	15.3	17.0	15.3	
	0.4	0.0	0.0	2.5	0.0	0.0	0.0	1.0	
	3.5	2.8	2.5	3.0	3.3	3.0	2.8	2.8	
	65	83	66	90	140	180	153	117	
W(X)	1.7	0.7	0.0	2.7-	4.2-	4.0-	3.3-	3.0-	
	13.6	15.1	8.8	12.7	10.1	11.2	13.8	13.3	
	14.1-	11.2-	12.6-	12.8-	14.5-	14.5-	16.0-	12.8-	
	6.2	5.7	5.2	5.7	5.0	4.3	5.1	5.1	
W(Y)	1.8	1.5	0.4	1.1	1.0	0.4	1.1-	2.6-	
	13.0	11.5	9.0	11.8	15.3	11.0	14.0	10.6	
	11.7-	9.7-	10.5-	11.8-	8.6-	12.5-	13.0-	12.0-	
	5.0	4.1	4.3	4.8	4.7	4.7	4.0	3.3	

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	LONGITUDE WEST 170	165	160	155	150	145	140	135	130
T(A)	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	20.1	20.3	19.8	19.6	19.5	18.6	17.5	16.6	
	26.0	24.0	25.0	23.1	24.2	24.0	22.0	22.0	
	15.5	16.0	16.1	16.5	15.5	15.5	15.0	12.6	
	2.0	1.7	1.5	1.5	1.5	1.5	1.1	1.3	
	75	90	82	92	166	173	145	95	
T(W)-T(A)	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	0.3	0.3	0.8	1.0	1.3	1.5	1.5	1.8	
	4.0	5.5	4.3	4.3	5.5	6.0	5.0	5.5	
	4.0-	3.0-	7.2-	2.0-	3.0-	4.0-	4.0-	4.3-	
	1.5	1.7	1.6	1.5	1.6	1.6	1.5	1.7	
	71	86	78	90	165	173	145	95	
E(W)-E(A)	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	3.1	4.0	5.0	5.1	6.6	6.6	6.7	6.5	
	10.8	11.5	12.5	14.2	14.2	15.0	12.8	13.2	
	2.0-	2.3-	2.0-	1.2-	1.5-	0.3-	0.2	2.0-	
	2.7	2.8	2.8	3.0	3.0	2.3	2.1	2.8	
	59	77	71	81	158	167	139	93	
EA	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	19.7	19.1	18.0	17.8	16.5	15.5	14.0	13.5	
	27.3	24.1	23.0	24.0	23.5	25.0	20.1	21.7	
	14.5	13.2	12.5	9.8	10.7	11.2	9.7	9.5	
	2.5	2.2	2.3	2.6	2.3	2.0	1.7	2.5	
	59	77	71	81	158	167	139	93	
C	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	0.6	0.4	0.6	0.6	0.6	0.7	0.7	0.9	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	
	74	95	83	94	167	178	151	99	
P	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	18.7	20.1	21.2	23.0	24.3	25.0	25.0	24.0	
	28.5	29.7	31.6	32.5	33.5	33.0	35.5	30.5	
	6.5	13.5	12.0	13.0	15.0	17.7	18.5	14.5	
	5.2	4.3	5.1	5.0	3.7	3.1	3.5	3.2	
	74	91	79	93	166	175	151	99	
W	4 3	4 3	4 3	4 3	3 3	3 3	4 3	4 3	
	7.0	6.5	6.5	7.5	7.8	7.7	7.2	8.1	
	15.3	13.8	13.8	18.0	12.8	14.0	15.3	30.8	
	0.5	0.0	0.0	0.0	0.0	1.0	0.5	1.0	
	3.1	2.6	3.0	3.0	2.3	2.6	3.1	5.0	
	75	94	84	93	166	176	150	91	
W(X)	0.4	2.1-	2.2-	4.1-	6.0-	6.2-	5.2-	4.8-	
	12.0	7.0	12.0	8.1	3.5	6.6	6.6	6.3	
	9.6-	10.1-	10.6-	16.8-	12.8-	13.6-	13.6-	19.5-	
	5.6	4.1	5.0	4.3	3.3	3.3	3.8	4.3	
W(Y)	3.0	2.8	2.0	2.2	0.1-	1.5-	2.7-	5.1-	
	14.5	13.8	13.0	12.6	10.2	12.6	7.0	3.8	
	6.2-	8.6-	6.2-	10.6-	10.1-	10.1-	15.1-	23.7-	
	4.0	4.2	4.1	5.0	4.5	4.0	3.5	4.6	

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MARCH 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	19.6	19.3	19.8	19.6	19.3	18.5	17.3	16.5
	25.0	24.0	24.2	26.0	24.5	23.1	20.2	22.0
	13.1	15.5	15.5	15.0	15.0	14.2	13.7	14.0
	2.3	2.0	1.8	1.7	1.5	1.5	1.1	1.3
	67	74	81	84	176	218	185	144
T(W)-T(A)	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	1.1	1.8	0.9	1.2	1.1	1.1	1.2	1.1
	12.1	4.7	6.0	5.0	4.5	4.6	3.8	4.5
	3.7-	3.0-	5.0-	4.2-	6.6-	7.7-	3.0-	5.5-
	2.5	1.6	1.8	1.7	1.8	1.5	1.2	1.5
	63	69	75	82	174	211	175	136
E(W)-E(A)	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	4.5	5.5	3.8	5.7	5.8	6.1	6.1	5.3
	16.7	14.0	15.3	14.3	13.2	11.5	10.6	9.7
	2.5-	2.7-	3.0-	0.5	2.6-	1.0-	1.1	1.1-
	4.0	3.7	3.5	2.8	2.8	2.1	1.7	2.2
	53	66	70	75	166	201	165	125
EA	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	18.2	18.1	19.3	17.7	17.0	15.5	14.0	13.5
	24.5	25.2	26.5	22.6	23.3	22.0	19.3	19.3
	12.0	10.8	10.0	12.1	10.7	10.8	10.6	9.3
	3.0	3.5	3.0	2.5	2.5	2.0	1.5	1.6
	53	60	70	75	166	201	165	125
C	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	0.7	0.7	0.6	0.7	0.7	0.8	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
	67	74	75	85	177	217	184	146
P	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	20.1	21.7	23.3	23.0	24.2	24.7	25.0	23.8
	28.0	31.0	31.6	33.5	33.5	34.5	34.6	34.0
	10.5	9.0	14.5	14.5	13.6	10.7	9.5	8.6
	4.1	3.7	3.8	4.2	4.3	5.2	6.0	6.5
	67	74	80	87	177	216	185	144
W	3 3	4 3	4 3	3 3	3 3	3 3	4 3	4 3
	8.2	7.5	8.1	8.7	8.5	8.1	8.0	7.5
	15.3	15.3	17.0	18.0	18.0	16.0	16.5	16.0
	0.0	0.0	2.5	2.5	1.5	0.0	1.0	0.0
	3.2	2.7	3.0	3.2	3.2	2.8	2.8	2.8
	66	75	81	85	176	218	183	144
W(X)	4.7-	4.0-	4.3-	5.2-	5.8-	4.8-	3.3-	1.6-
	12.6	7.7	7.0	9.6	10.5	10.5	10.6	10.1
	15.1-	14.5-	12.8-	17.7-	17.0-	16.0-	16.5-	16.0-
	5.2	4.1	4.2	5.8	5.5	5.6	5.7	5.3
W(Y)	1.0-	1.2-	0.3	0.2	0.8-	1.0-	2.8-	3.5-
	9.0	8.0	15.3	10.2	9.7	15.3	12.8	11.0
	13.0-	11.8-	14.7-	12.3-	16.5-	14.5-	13.5-	14.3-
	5.1	5.5	6.1	5.0	4.1	4.2	4.6	4.5

APRIL 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	20.0	20.3	20.2	20.0	19.7	18.2	17.2	16.1
	23.1	23.5	25.0	23.1	24.0	24.0	21.5	21.2
	16.5	17.0	16.0	15.5	16.0	14.2	13.7	13.0
	1.6	1.5	2.1	1.5	1.5	1.5	1.3	1.5
	36	39	34	44	129	198	145	108
T(W)-T(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	0.6	1.0	1.0	0.9	1.3	1.7	1.6	1.3
	4.0	5.5	5.5	5.5	6.5	6.0	8.2	6.6
	8.1-	4.5-	2.5-	2.8-	2.7-	4.6-	4.8-	6.0-
	2.0	1.7	2.0	1.8	1.6	1.5	1.7	1.8
	34	34	32	39	123	192	143	106
E(W)-E(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	5.3	5.8	5.5	5.3	6.6	6.5	6.1	5.5
	10.8	13.5	12.6	10.2	15.3	14.5	15.8	12.0
	2.6-	1.2-	0.3-	1.0-	0.7-	0.0	0.0	1.0-
	3.6	3.5	3.2	3.2	2.3	2.1	2.0	2.2
	28	31	28	34	118	188	139	104
EA	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	18.1	18.5	19.1	18.0	17.0	15.3	14.3	13.3
	23.0	23.0	22.2	22.5	21.8	21.5	20.5	20.5
	11.7	11.3	11.8	13.5	13.1	9.8	11.3	9.5
	3.1	2.8	2.8	2.1	1.7	1.8	1.5	1.8
	28	31	28	34	118	188	139	104
C	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	0.6	0.6	0.6	0.7	0.6	0.8	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
	35	39	34	44	128	198	145	109
P	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	25.0	23.6	22.6	23.6	24.8	26.0	26.5	25.7
	32.0	31.0	29.0	29.0	30.0	31.6	31.6	32.5
	15.1	15.7	15.5	16.1	19.1	20.5	21.0	18.5
	3.8	4.1	3.7	3.3	2.2	2.2	2.3	3.1
	36	39	33	44	129	195	144	107
W	2 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	7.8	8.0	6.5	8.7	7.5	7.6	7.5	7.3
	12.8	15.3	11.7	15.3	13.8	13.8	13.8	17.5
	2.5	2.5	1.0	0.0	0.5	2.0	3.0	2.5
	2.5	3.1	2.5	3.6	2.3	2.3	2.1	2.6
	36	39	34	44	128	196	146	108
W(X)	6.1-	6.5-	3.8-	7.0-	6.7-	6.8-	6.0-	4.1-
	5.0	0.0	3.1	4.0	0.0	7.5	3.6	5.1
	12.6-	15.1-	8.2-	15.1-	13.0-	12.3-	12.6-	11.0-
	3.3	3.3	2.3	4.5	2.6	2.7	2.7	3.3
W(Y)	3.2-	0.2-	0.7	0.7-	0.6-	2.0-	3.2-	5.0-
	3.3	8.5	11.7	8.5	9.1	4.7	4.6	2.2
	8.5-	9.5-	8.0-	11.5-	6.7-	9.0-	12.0-	13.5-
	2.6	4.5	5.3	4.3	3.0	2.3	2.5	2.7

LATITUDE 25° - 30° N.

MAY 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3	
	22.7	22.0	21.3	20.0	19.8	18.5	17.2	17.0	
	26.5	29.0	25.0	24.2	25.5	24.5	22.5	26.0	
	20.0	18.2	19.0	16.5	16.5	15.5	13.7	14.0	
	1.6	1.8	1.5	1.8	1.5	1.6	1.5	2.0	
	29	48	30	48	131	201	145	104	
T(W)-T(A)	2 3	3 3	3 3	3 2	2 3	3 3	4 3	4 3	
	0.2	0.3	0.3	1.3	1.0	1.2	1.5	1.0	
	2.0	4.8	3.0	5.5	5.5	6.6	6.6	5.5	
	3.3-	5.5-	3.0-	3.0-	5.5-	4.5-	5.0-	4.8-	
	1.3	2.0	1.5	1.8	1.7	1.5	1.7	1.6	
	26	41	26	44	130	200	142	97	
E(W)-E(A)	2 3	3 3	3 3	3 2	2 3	3 3	4 3	4 3	
	4.0	4.7	5.2	6.3	6.5	6.1	5.8	5.3	
	8.5	11.3	11.8	14.2	13.0	13.5	13.5	11.5	
	0.6	1.0-	0.4-	0.3-	0.7	0.2-	2.0-	0.1-	
	2.3	3.5	3.0	3.6	2.5	2.3	2.2	2.5	
	23	38	22	38	124	194	136	93	
EA	2 3	3 3	3 3	3 2	2 3	3 3	4 3	4 3	
	22.3	20.5	19.6	17.7	16.8	15.5	14.5	13.8	
	26.0	25.2	22.6	23.3	22.7	22.6	21.6	19.5	
	16.5	13.5	13.0	11.0	11.8	9.3	11.0	10.0	
	2.1	2.8	2.5	3.0	2.2	2.2	2.0	2.0	
	23	38	22	38	124	194	136	93	
C	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3	
	0.7	0.6	0.5	0.6	0.7	0.7	0.8	0.7	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	29	48	32	48	131	197	146	104	
P	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3	
	18.6	21.5	23.2	25.1	23.2	23.8	24.3	22.7	
	26.0	26.6	30.6	31.0	30.6	31.5	32.0	30.6	
	12.0	12.0	10.2	19.0	14.7	15.0	15.8	14.0	
	3.7	3.0	4.3	3.2	3.6	3.8	4.0	3.2	
	29	48	32	48	132	201	147	104	
W	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3	
	8.0	8.0	7.3	7.8	7.2	7.1	7.0	7.0	
	14.3	12.8	10.2	12.8	13.8	13.3	15.3	12.8	
	3.0	2.0	3.5	1.0	1.5	0.0	0.0	1.5	
	2.5	2.5	1.7	2.5	2.8	2.7	2.8	2.7	
	28	48	32	48	132	198	147	103	
W(X)	6.0-	6.5-	6.5-	6.8-	4.7-	4.0-	3.5-	2.1-	
	0.5-	1.5-	0.1	5.0	8.7	12.0	13.5	12.6	
	10.2-	12.8-	10.0-	12.0-	12.6-	13.1-	11.5-	11.5-	
	2.5	2.8	2.5	3.0	4.8	5.0	4.5	4.2	
W(Y)	2.0	0.8	0.6-	1.6-	2.2-	2.2-	2.5-	3.2-	
	12.3	10.0	6.2	7.7	5.8	7.7	15.1	10.1	
	6.7-	8.3-	7.1-	7.1-	9.0-	8.6-	8.0-	10.6-	
	5.0	4.2	2.7	2.8	2.8	3.5	4.2	4.6	

JUNE 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	23.1	23.6	23.2	23.1	22.0	20.7	19.7	19.0	
	26.5	27.0	29.0	27.0	29.0	27.0	24.2	23.1	
	20.0	20.5	19.0	20.0	18.5	17.6	17.0	14.2	
	1.3	1.3	2.0	1.5	1.6	1.5	1.2	1.5	
	23	39	28	47	151	183	139	95	
T(W)-T(A)	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	0.2	0.2-	0.2-	0.3-	0.4	0.6	0.6	0.0	
	4.0	4.0	3.5	3.1	3.7	4.5	4.5	2.8	
	5.0-	7.0-	6.0-	6.0-	10.0-	5.0-	6.0-	4.0-	
	2.0	2.2	2.0	1.8	1.8	1.6	1.5	1.5	
	22	35	26	44	147	177	137	91	
E(W)-E(A)	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	2.8	3.8	2.7	4.0	5.2	5.2	4.8	3.5	
	7.5	15.1	7.7	9.7	10.3	10.7	10.3	8.0	
	3.0-	4.8-	1.2-	1.5-	0.2-	0.1	2.2-	0.2-	
	2.0	3.5	2.0	2.6	2.1	2.0	2.1	2.0	
	16	32	23	40	142	174	132	86	
EA	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	24.8	23.7	24.5	22.5	20.3	18.6	17.6	17.1	
	26.8	29.0	27.5	27.1	25.0	25.1	20.5	21.8	
	22.0	13.6	20.2	16.3	14.5	13.8	13.2	12.7	
	1.5	2.6	1.7	2.5	2.0	2.0	2.1	2.0	
	16	32	23	40	142	174	132	86	
C	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	0.7	0.5	0.7	0.5	0.7	0.8	0.8	0.7	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	24	39	28	48	151	183	139	95	
P	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	16.6	18.1	17.7	19.8	21.8	23.0	22.8	21.6	
	21.0	26.5	26.0	26.0	28.6	28.6	29.5	26.1	
	9.0	12.0	11.7	13.5	11.0	14.0	13.7	15.7	
	2.8	3.7	4.5	3.5	3.2	3.1	3.0	2.1	
	24	39	28	49	149	184	133	94	
W	3 3	3 3	3 3	3 2	2 3	3 3	4 4	4 3	
	6.1	6.2	6.6	6.5	7.0	6.5	6.1	5.8	
	13.8	11.2	10.7	12.8	13.8	14.3	13.8	13.3	
	1.5	2.5	0.0	2.0	0.7	0.5	0.5	0.5	
	3.2	2.1	2.6	2.7	2.5	2.7	2.5	3.0	
	23	40	28	48	150	178	133	90	
W(X)	0.5-	1.8-	0.5	2.3-	5.2-	4.0-	3.2-	1.7-	
	6.7	7.0	9.5	7.7	5.5	7.7	7.1	4.8	
	9.2-	9.5-	9.2-	12.0-	13.0-	14.1-	9.7-	11.5-	
	4.3	4.5	5.7	5.1	4.0	4.5	3.7	3.7	
W(Y)	1.7	1.1	0.0	0.8	0.7-	1.2-	2.3-	3.0-	
	12.0	10.5	10.0	8.3	7.5	9.6	13.6	12.6	
	7.0-	7.6-	7.1-	7.1-	8.0-	9.0-	8.5-	10.6-	
	5.0	4.1	4.2	4.0	3.1	3.5	3.7	4.1	

JULY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	3 3	2 3	2 3	3 3	4 3	4 3
	25.5	24.5	24.0	23.2	22.5	21.5	20.6	19.1
	29.2	29.5	27.0	27.5	26.5	26.5	27.0	22.0
	21.5	21.7	21.0	21.5	20.0	18.1	18.1	16.5
	1.5	1.5	1.3	1.2	1.1	1.3	1.1	1.0
	35	39	28	22	131	180	136	95
T(W)-T(A)	2 3	3 2	3 3	2 3	2 3	3 3	4 3	4 2
	0.0	0.5	1.0	0.9	0.6	0.8	0.5	0.7
	3.8	3.0	3.8	4.0	5.0	5.5	4.1	7.2
	3.5-	5.5-	2.0-	5.5-	4.5-	4.5-	6.0-	3.2-
	1.3	1.8	1.5	2.0	1.5	1.5	1.1	1.3
	33	37	25	22	130	178	136	94
E(W)-E(A)	2 3	3 2	3 3	2 3	2 3	3 3	4 3	4 2
	5.6	5.8	5.7	6.6	5.5	5.3	5.0	4.3
	12.7	11.6	11.5	12.7	11.2	13.2	11.1	14.3
	1.0-	1.2	1.2	1.2	0.6	0.8-	0.0	0.0
	2.5	2.7	2.5	2.6	2.1	2.3	1.8	2.2
	31	37	25	22	127	169	131	93
EA	2 3	3 2	3 3	2 3	2 3	3 3	4 3	4 2
	24.8	24.0	23.7	21.6	21.1	19.8	18.5	17.3
	30.0	29.0	27.5	25.1	24.2	25.3	22.2	22.0
	22.3	16.7	19.7	18.7	16.3	14.3	14.7	12.8
	1.8	2.0	2.0	1.6	1.6	1.8	1.5	1.6
	31	37	25	22	127	169	131	93
C	2 3	3 3	3 3	2 3	2 3	3 3	4 3	4 3
	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1
	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2
	35	41	30	22	128	180	137	96
P	2 3	3 3	3 3	2 3	2 3	3 3	4 3	4 3
	22.1	23.0	22.7	22.5	22.0	22.3	22.3	20.8
	26.0	27.0	27.0	27.0	27.0	27.6	26.6	26.0
	16.0	19.5	18.0	19.5	14.0	17.5	18.0	12.1
	2.5	2.0	2.1	2.0	2.2	2.0	1.8	2.3
	33	39	26	22	130	178	137	97
W	2 3	3 3	3 3	2 3	2 3	3 3	4 3	4 3
	6.5	7.2	6.8	8.0	7.2	6.5	6.0	6.5
	11.7	10.2	10.2	12.8	14.3	12.8	11.7	12.3
	0.5	4.0	2.5	2.0	0.0	0.0	0.5	0.0
	2.2	1.3	1.8	3.1	2.3	2.5	2.2	2.5
	34	41	28	22	130	177	136	93
W(X)	6.0-	6.3-	5.7-	6.7-	6.3-	5.5-	4.6-	3.7-
	0.1-	3.8	4.6	0.3-	0.0	2.6	4.0	3.0
	11.0-	10.0-	10.2-	12.0-	12.3-	12.0-	11.0-	9.5-
	2.0	2.2	2.6	3.3	2.2	2.5	2.5	2.6
W(Y)	0.5-	1.5-	1.5-	3.2-	2.3-	2.3-	3.1-	4.6-
	3.2	3.2	4.0	0.0	6.2	12.6	2.1	0.0
	9.8-	6.2-	6.6-	8.3-	10.1-	9.0-	10.6-	12.0-
	2.5	2.6	2.7	2.5	2.5	2.7	2.1	2.6

AUGUST 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	25.3	25.0	24.5	24.3	23.6	23.0	22.3	21.3
	28.0	28.0	30.0	30.0	30.0	31.0	27.6	26.0
	22.1	22.0	22.0	22.0	20.1	20.0	19.0	18.6
	1.1	1.0	1.5	1.5	1.5	1.5	1.3	1.6
	29	28	23	44	143	199	128	77
T(W)-T(A)	2 3	3 3	3 3	2 2	2 3	3 3	4 4	4 3
	0.8	0.4	0.4	1.0	0.7	0.8	0.7	0.6
	3.2	3.3	3.0	4.0	4.0	4.0	3.2	3.0
	1.0-	2.0-	5.5-	5.0-	4.5-	6.0-	4.5-	3.8-
	1.0	1.0	1.7	1.5	1.6	1.5	1.5	1.5
	28	27	22	40	134	191	126	76
E(W)-E(A)	2 3	3 3	3 3	2 2	2 3	3 3	4 4	4 3
	6.2	5.2	5.0	7.1	6.3	6.6	6.5	5.5
	13.2	10.3	7.3	14.0	11.5	11.7	15.0	12.5
	3.0	2.0	0.4	3.5	0.1-	0.1-	0.7	2.6-
	2.3	2.0	1.6	2.3	1.7	2.0	2.5	2.5
	22	20	16	38	129	190	126	76
EA	2 3	3 3	3 3	2 2	2 3	3 3	4 4	4 3
	25.5	25.0	24.7	23.0	22.1	21.0	20.0	19.1
	28.0	29.5	27.2	28.0	25.7	28.0	24.8	27.6
	22.1	21.7	22.5	20.5	18.2	16.0	14.3	15.6
	1.3	1.5	1.0	1.5	1.2	1.7	2.0	2.0
	22	20	16	38	129	190	126	76
C	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3
	29	29	25	48	145	200	130	78
P	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	21.1	22.0	22.1	21.5	21.5	21.3	20.6	20.0
	24.5	28.6	27.2	24.2	25.5	26.6	25.5	24.5
	15.5	15.6	16.0	18.1	15.5	14.5	15.5	15.0
	2.0	3.0	2.2	1.6	2.0	2.2	2.5	2.5
	29	28	25	48	142	199	130	78
W	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	7.1	6.7	7.0	6.7	5.8	5.0	4.2	4.7
	10.5	12.8	12.8	10.7	11.7	11.2	11.2	11.2
	1.0	1.5	1.5	2.0	1.5	0.0	0.0	0.7
	2.5	2.8	2.8	2.3	2.0	2.3	2.1	2.2
	29	29	25	48	136	192	123	70
W(X)	6.6-	5.5-	6.1-	6.0-	5.2-	3.8-	2.5-	1.7-
	0.3	3.3	1.1-	1.2-	0.0	2.2	4.7	4.3
	10.3-	9.7-	9.5-	10.7-	11.7-	11.2-	10.5-	10.5-
	2.7	3.2	2.5	2.3	2.0	2.5	2.6	3.0
W(Y)	0.2	0.1	1.3-	1.7-	1.5-	2.0-	2.0-	2.6-
	8.1	9.7	9.7	3.8	3.5	4.0	3.5	4.0
	3.5-	5.5-	5.5-	6.6-	6.6-	7.8-	7.8-	10.1-
	2.2	3.6	3.2	2.3	1.8	2.0	2.0	3.0

LATITUDE 25° – 30° N.

SEPTEMBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	3 4	3 3	2 3	3 3	4 3	4 3
	24.6	24.7	24.7	24.2	23.5	22.6	21.5	20.3
	27.0	29.2	28.7	27.6	27.6	27.6	28.0	24.2
	23.0	21.5	22.0	21.0	21.2	17.0	18.7	18.1
	1.1	1.6	1.1	1.2	1.2	1.5	1.2	1.1
	28	31	28	53	136	192	161	113
T(W)-T(A)	2 3	3 3	3 4	3 3	2 3	3 3	4 3	4 3
	1.3	0.9	0.5	0.6	0.7	0.8	0.8	1.0
	4.0	5.0	4.5	2.8	3.3	5.5	4.2	3.8
	1.0-	4.2-	3.2-	4.0-	4.0-	4.0-	5.0-	3.2-
	1.2	1.6	1.5	1.5	1.3	1.5	1.5	1.2
	28	30	27	52	135	191	159	112
E(W)-E(A)	2 3	3 3	3 4	3 3	2 3	3 3	4 3	4 3
	8.1	6.5	5.0	7.3	7.2	7.1	7.0	6.8
	10.8	10.6	9.0	12.3	12.6	12.6	16.5	12.5
	4.8	3.0	1.6-	1.0	1.6	1.0	1.7	2.0
	1.5	1.5	3.0	2.1	2.2	2.2	2.0	2.0
	19	28	27	47	131	185	155	107
EA	2 3	3 3	3 4	3 3	2 3	3 3	4 3	4 3
	23.8	24.5	25.3	22.1	21.3	19.8	18.5	17.1
	28.7	27.2	30.3	25.2	26.7	26.0	24.6	22.2
	18.8	22.0	22.5	18.5	17.7	14.6	14.3	11.8
	2.0	1.1	2.3	1.5	1.6	2.0	2.0	1.8
	19	28	27	47	131	185	155	107
C	2 3	3 3	3 4	3 3	2 3	3 3	4 4	4 3
	0.5	0.6	0.6	0.5	0.6	0.7	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	31	31	28	53	138	192	161	115
P	2 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	18.6	18.0	18.7	20.5	20.7	21.0	21.0	20.5
	23.0	23.5	25.0	26.0	25.5	27.0	26.7	25.5
	13.5	12.5	12.5	16.1	16.0	15.0	15.2	15.0
	2.2	3.1	3.0	1.8	1.8	2.2	2.5	2.2
	31	32	27	53	138	167	158	111
W	2 3	3 3	3 4	3 3	2 3	3 3	4 3	4 3
	6.0	6.2	5.8	6.5	7.5	7.0	6.2	7.0
	10.2	12.8	8.7	10.2	11.7	12.8	14.8	18.0
	1.0	1.5	0.0	0.0	1.5	0.0	0.0	0.0
	2.2	2.8	2.2	2.3	2.0	2.2	2.6	3.5
	29	30	28	53	138	191	159	113
W(X)	5.0-	4.8-	4.7-	5.7-	7.0-	6.2-	5.0-	4.6-
	0.3-	0.9	0.0	0.0	0.0	3.2	4.0	0.0
	8.1-	9.5-	8.1-	10.2-	11.7-	11.7-	12.0-	13.6-
	2.2	2.5	2.3	2.6	2.3	2.5	2.6	2.7
W(Y)	2.1-	0.5-	1.5	0.0	1.3-	2.3-	2.8-	4.5-
	3.0	7.8	7.6	7.0	3.5	3.0	5.0	3.5
	9.6-	9.8-	4.0-	5.2-	6.1-	8.0-	9.8-	14.5-
	2.6	4.0	3.0	2.6	1.8	2.1	2.3	3.2

OCTOBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 3	4 3	3 3	2 3	3 3	4 4	4 3
	23.8	23.1	22.5	22.6	22.6	21.8	21.0	20.2
	28.1	29.0	29.0	28.0	78.0	27.0	27.6	22.6
	20.0	18.7	18.7	19.7	18.7	18.1	16.5	17.2
	1.7	1.8	1.7	1.5	4.3	1.3	1.2	1.0
	50	71	60	57	180	228	172	106
T(W)-T(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	1.1	1.5	1.7	1.3	1.3	1.0	0.7	0.6
	5.0	6.1	4.3	5.0	10.0	5.0	4.3	3.5
	2.7-	5.0-	3.1-	4.0-	8.8-	3.8-	4.5-	3.3-
	1.8	1.7	1.6	1.5	1.8	1.5	1.3	1.3
	47	69	55	49	170	224	162	95
E(W)-E(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	8.1	8.0	9.1	8.3	8.0	6.8	5.1	5.0
	17.3	15.5	16.1	15.7	16.0	14.0	11.8	12.0
	1.6	2.6	1.2	2.6	0.5	0.3	0.5-	0.2
	3.8	3.2	3.2	3.6	2.8	2.5	2.0	2.2
	47	69	51	48	161	223	161	95
EA	4 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	21.5	21.1	19.5	20.0	19.5	19.3	19.2	18.0
	28.5	27.5	26.0	25.7	26.7	25.0	24.0	24.0
	11.5	13.1	14.1	12.2	12.5	11.7	15.2	13.1
	3.7	3.0	3.0	3.2	2.7	2.3	1.6	2.0
	47	69	51	48	161	223	161	95
C	3 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	0.6	0.6	0.5	0.6	0.6	0.5	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	53	72	66	61	178	226	173	106
P	3 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	21.7	21.7	21.5	20.0	19.0	19.1	19.2	18.5
	28.2	28.0	27.0	26.2	26.5	27.0	27.0	26.0
	16.5	15.5	9.6	12.5	10.6	9.6	11.2	1.0
	2.6	3.0	3.7	3.5	3.0	3.1	3.3	4.1
	52	68	66	61	177	227	168	103
W	3 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	9.1	8.0	7.5	7.5	7.0	6.5	5.7	5.8
	17.0	17.0	18.5	17.5	18.0	15.3	15.3	13.8
	0.5	0.0	1.5	0.0	0.0	0.0	0.0	1.5
	4.0	4.0	4.2	3.5	3.0	2.8	2.8	2.7
	51	71	65	60	179	225	171	103
W(X)	7.0-	5.0-	3.0-	1.5-	2.6-	2.0-	1.0-	0.3-
	5.6	7.7	14.2	8.6	9.6	12.0	8.6	12.0
	16.1-	15.8-	13.5-	15.0-	17.0-	12.0-	9.5-	7.7-
	4.8	5.2	5.7	5.2	4.5	4.5	4.0	4.1
W(Y)	1.2-	3.0-	3.6-	3.1-	1.3-	1.0-	0.8-	2.0-
	9.7	9.7	9.3	12.5	18.0	15.3	10.8	12.0
	13.0-	12.8-	16.0-	11.0-	12.3-	12.5-	15.1-	10.1-
	5.0	4.3	4.2	5.2	5.2	5.0	4.8	4.5

LATITUDE 25° - 30° N.

NOVEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3 22.0 25.0 18.0 1.5 80	3 3 21.5 25.0 16.5 1.5 83	3 3 21.3 24.5 16.0 1.7 60	4 3 21.1 26.0 16.0 1.5 62	3 3 21.0 25.5 17.0 1.2 140	3 3 20.0 25.5 16.5 1.3 173	4 4 19.0 23.6 15.5 1.3 147	4 3 18.5 28.1 15.5 1.7 99
T(W)-T(A)	3 3 1.2 4.5 1.5- 1.2 78	3 3 1.1 7.6 2.2- 1.6 77	3 3 1.5 7.7 2.1- 1.7 58	4 3 1.1 7.7 3.0- 2.0 61	3 3 1.1 5.5 2.5- 1.5 137	3 3 1.5 5.5 2.7- 1.5 171	4 4 1.5 6.0 4.3- 1.5 144	4 3 1.3 4.5 7.1- 1.6 97
E(W)-E(A)	3 3 6.5 13.0 0.3- 2.6 70	3 3 6.0 12.6 0.8- 2.7 70	3 3 6.1 16.1 1.5- 3.7 54	4 3 5.5 16.1 1.6- 4.0 60	3 3 5.3 14.0 3.2- 3.5 135	3 3 6.1 14.7 1.5- 3.3 169	4 4 6.3 14.0 1.0- 2.8 143	4 3 6.1 12.0 2.3- 2.7 95
EA	3 3 20.2 27.0 12.8 3.0 70	3 3 19.8 26.6 13.1 3.0 70	3 3 20.0 28.2 11.5 3.8 54	4 3 19.8 26.1 11.3 3.6 60	3 3 19.5 28.0 10.0 3.2 135	3 3 18.0 26.3 9.2 3.2 169	4 4 16.2 21.6 11.3 2.3 143	4 3 15.6 23.3 11.8 2.5 95
C	3 3 0.7 1.0 0.1 0.3 77	3 3 0.6 1.0 0.0 0.3 82	3 3 0.7 1.0 0.0 0.3 63	4 3 0.7 1.0 0.0 0.3 63	3 3 0.6 1.0 0.0 0.2 139	3 3 0.8 1.0 0.0 0.2 173	4 4 0.7 1.0 0.0 0.3 147	4 3 0.7 1.0 0.0 0.3 102
P	3 3 14.2 28.0 5.8- 9.1 79	3 3 14.7 27.6 4.0- 9.0 81	3 3 16.1 29.5 2.0- 7.3 60	4 3 19.2 30.5 3.0 6.2 60	3 3 19.2 31.0 8.2 5.5 134	3 3 21.2 30.0 11.5 4.3 168	4 4 22.3 33.0 12.0 4.0 144	4 3 21.3 31.5 13.7 4.0 96
W	3 3 10.8 18.0 0.0 3.7 81	3 3 9.1 19.0 0.0 3.8 82	3 3 8.8 15.3 1.6 3.2 63	4 3 8.1 14.3 0.0 3.0 63	3 3 8.3 15.3 0.0 3.2 140	3 3 7.5 12.8 0.0 2.8 170	4 4 6.8 13.8 1.0 2.6 143	4 3 6.5 14.3 0.0 3.0 101
W(X)	0.2- 18.0 12.8- 9.7	0.9- 16.3 13.8- 7.6	2.5- 12.8 13.8- 6.5	2.5- 12.3 12.8- 6.2	3.7- 9.7 14.1- 4.7	4.0- 6.6 12.8- 3.7	2.5- 6.1 12.8- 3.5	0.4- 8.6 7.7- 3.6
W(Y)	0.5 12.5 16.8- 6.0	1.2 15.6 12.1- 6.0	1.7 15.1 11.1- 6.1	1.5 11.1 12.0- 5.2	1.3 14.5 14.5- 6.3	0.6 12.6 10.3- 5.7	2.1- 13.8 12.2- 5.5	2.8- 12.0 13.2- 5.3

DECEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 2 19.5 23.1 16.0 1.5 82	4 3 20.5 25.5 16.5 1.8 120	4 3 20.7 27.0 15.1 1.7 110	4 3 20.8 23.7 17.0 1.5 100	3 3 21.0 24.2 16.6 1.1 173	3 3 20.5 25.0 15.5 1.5 205	4 3 19.5 23.1 15.6 1.3 156	4 3 18.6 22.0 15.2 1.5 89
T(W)-T(A)	4 2 1.5 6.0 5.0- 2.0 77	4 3 1.0 5.5 6.0- 2.0 112	4 3 0.9 6.3 4.0- 1.5 103	3 3 0.9 5.0 2.7- 1.3 98	3 3 0.7 5.0 2.7- 1.1 167	3 3 0.6 4.5 3.3- 1.5 200	4 3 0.6 4.0 2.7- 1.3 150	4 3 0.7 4.0 2.0- 1.5 85
E(W)-E(A)	4 2 6.0 16.3 4.2- 4.5 77	4 3 5.2 15.2 4.6- 4.1 112	4 3 4.3 12.8 2.6- 3.6 101	4 3 4.5 12.6 1.7- 3.5 86	3 3 3.8 10.5 2.0- 2.5 163	3 3 3.7 10.8 2.2- 3.0 199	4 3 3.5 11.1 2.2- 2.8 144	4 3 3.1 10.0 1.5- 2.6 82
EA	4 2 17.6 24.0 10.0 3.6 77	4 3 18.8 26.0 9.6 4.2 112	4 3 20.1 26.3 10.3 4.0 101	4 3 20.0 25.7 12.5 3.5 86	3 3 20.8 26.7 12.1 2.5 163	3 3 19.7 25.7 10.5 3.0 199	4 3 18.5 23.3 10.6 2.8 144	4 3 17.8 22.2 12.0 2.2 82
C	4 2 0.7 1.0 0.1 0.3 77	4 3 0.6 1.0 0.0 0.3 114	4 3 0.7 1.0 0.0 0.3 108	3 3 0.6 1.0 0.0 0.3 99	3 3 0.6 1.0 0.0 0.3 171	3 3 0.6 1.0 0.0 0.3 207	4 3 0.7 1.0 0.0 0.3 158	4 3 0.7 1.0 0.0 0.3 90
P	4 2 12.0 26.2 11.0- 10.0 80	4 3 13.1 25.6 10.6- 8.5 120	4 3 16.0 24.7 2.0- 6.1 109	4 3 17.8 25.0 5.8- 5.5 97	3 3 18.6 28.0 1.0- 4.8 172	3 3 20.5 29.0 5.0 4.7 208	4 3 21.3 28.2 10.5 4.2 160	4 3 22.2 32.5 13.0 3.5 91
W	4 2 9.3 20.5 0.0 5.1 82	4 3 9.0 20.5 0.0 4.0 120	4 3 8.1 16.5 0.0 3.6 110	4 3 6.6 30.8 0.0 4.1 96	3 3 6.2 22.5 0.0 3.2 170	3 3 6.6 19.0 1.0 3.5 204	4 3 6.0 15.3 0.0 3.3 155	4 3 5.6 14.3 0.0 2.8 85
W(X)	1.7 20.2 14.7- 7.7	1.8 16.2 20.1- 7.0	0.9- 14.5 14.3- 6.3	0.8- 19.5 9.2- 5.3	1.0- 17.1 11.7- 5.0	0.5- 13.0 11.1- 4.6	0.3- 9.7 8.6- 3.7	0.5- 7.3 9.0- 3.8
W(Y)	2.1 17.8 16.1- 6.8	2.8 15.5 8.1- 6.0	3.0 16.1 8.7- 5.3	2.7 23.7 7.0- 5.0	2.7 14.6 6.8- 4.0	3.5 15.6 7.7- 4.6	2.3 14.5 10.2- 5.2	1.0 12.5 8.5- 4.8

JANUARY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	19.0	19.1	20.5	20.1	20.5	19.8	18.7	17.7
	22.6	24.0	26.0	23.1	28.7	22.6	22.3	22.0
	13.7	14.0	15.0	14.2	16.5	15.5	15.5	15.0
	1.7	2.2	1.7	1.7	1.5	1.2	1.3	1.5
	54	82	82	97	178	200	152	91
T(W)-T(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	1.5	1.8	1.2	1.5	1.0	0.8	0.8	1.0
	7.1	8.0	5.5	6.0	4.3	5.0	4.3	5.5
	1.5-	3.0-	3.2-	2.0-	6.6-	3.3-	3.3-	2.2-
	1.6	2.3	1.7	1.6	1.3	1.5	1.3	1.8
	54	80	81	95	174	199	151	89
E(W)-E(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	6.5	6.1	5.8	5.7	4.5	4.5	4.2	4.5
	14.7	16.1	14.5	13.2	13.1	14.5	13.0	12.3
	1.7-	3.0-	0.4-	1.3-	2.5-	2.5-	1.5-	1.5-
	3.2	3.8	3.5	3.3	3.0	3.0	2.8	2.7
	53	78	79	92	173	194	144	77
EA	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	16.5	17.2	19.0	19.0	19.6	18.3	17.0	15.8
	22.6	25.0	25.0	24.1	25.8	24.8	22.2	20.5
	11.5	9.2	12.0	10.8	11.7	10.6	9.6	10.2
	2.7	3.5	3.1	3.3	3.0	3.0	2.7	2.1
	53	78	79	92	173	194	144	77
C	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	55	82	80	96	175	196	152	91
P	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	13.6	13.1	13.0	13.8	15.1	18.5	20.7	21.2
	26.5	23.5	26.0	27.0	30.0	31.5	32.7	37.0
	5.0-	4.2-	1.6-	0.2	5.0-	0.2-	8.5	11.7
	7.0	7.0	6.5	6.6	6.7	5.7	5.2	4.8
	53	83	82	98	175	195	151	91
W	3 3	3 3	3 3	3 3	2 3	3 3	4 4	4 3
	7.8	9.0	8.3	8.5	8.5	7.7	6.3	5.0
	18.5	18.0	20.5	23.1	20.5	23.2	15.3	10.2
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	4.5	4.3	4.1	4.5	4.0	4.5	2.8	2.2
	54	81	82	97	175	198	150	86
W(X)	3.5	2.2	1.5	2.1	0.9-	2.5-	1.7-	1.8-
	18.5	16.7	20.5	17.5	17.6	12.3	12.3	7.0
	7.2-	10.1-	10.2-	6.6-	14.5-	15.6-	10.7-	9.0-
	5.8	7.2	7.2	6.1	5.5	5.2	4.0	3.5
W(Y)	0.7-	0.7-	0.8	2.0	4.6	4.2	3.5	0.7
	13.1	12.6	12.0	15.3	20.1	20.7	11.6	8.6
	18.1-	15.5-	15.3-	20.5-	17.7-	11.2-	15.1-	6.0-
	5.8	6.5	5.5	6.7	5.8	5.3	4.0	3.8

FEBRUARY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	17.6	17.5	17.7	18.5	19.3	19.0	18.5	16.8
	21.0	20.5	21.5	22.6	23.1	28.0	22.0	21.0
	14.6	12.0	14.2	13.7	14.2	15.5	15.2	14.0
	1.5	1.5	1.5	1.6	1.5	1.5	1.2	1.5
	56	78	60	72	151	203	166	92
I(W)-T(A)	4 3	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	1.7	2.3	2.0	1.6	1.3	1.0	0.8	1.5
	5.5	9.0	5.5	5.5	6.2	5.5	6.6	6.1
	2.0-	1.0-	0.6-	2.8-	2.7-	8.0-	3.2-	3.0-
	1.5	1.6	1.5	1.6	1.7	1.6	1.5	1.6
	55	78	59	70	150	200	166	92
E(W)-E(A)	4 3	4 3	4 3	3 3	3 3	3 3	4 4	4 3
	6.7	7.2	6.0	4.6	4.8	4.5	4.2	5.2
	13.1	13.5	13.5	14.0	14.8	14.0	11.8	12.0
	0.3	1.5	1.1-	1.3-	5.0-	1.7-	2.0-	0.4
	2.7	2.3	2.6	3.3	3.5	2.7	2.6	2.3
	54	78	59	69	144	182	156	82
EA	4 3	4 3	4 3	3 3	3 3	3 3	4 4	4 3
	14.5	14.5	15.8	17.7	18.0	17.5	16.6	14.8
	20.0	19.1	19.5	22.6	28.3	23.0	23.3	20.2
	10.3	9.5	9.6	10.3	10.6	10.8	11.1	11.1
	2.0	2.0	2.2	3.1	3.2	2.5	2.6	2.2
	54	78	59	69	144	182	156	82
C	4 3	4 3	4 3	3 3	2 3	3 3	4 4	4 3
	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	57	78	60	71	152	195	161	92
P	4 3	4 3	4 3	3 3	3 3	3 3	4 4	4 3
	20.6	19.0	17.3	16.0	16.7	16.6	19.1	22.0
	25.0	26.6	27.2	24.5	25.2	28.6	29.5	31.0
	12.0	6.0	5.0	1.0-	3.0-	3.5-	0.6	8.6
	2.5	3.8	4.6	4.6	4.5	7.1	6.5	5.0
	56	78	60	71	145	194	162	91
W	4 3	4 3	4 3	3 3	2 3	3 3	4 3	4 3
	6.3	8.2	7.3	8.6	10.3	9.6	8.2	7.5
	20.5	17.0	18.0	24.1	23.1	18.0	18.0	18.0
	1.0	1.0	0.0	0.0	1.5	0.0	0.0	0.0
	3.6	3.8	4.5	5.7	3.5	3.3	3.0	2.7
	55	77	58	71	153	202	166	93
W(X)	2.1-	2.5-	1.0-	3.6-	3.6-	3.8-	4.0-	4.1-
	13.8	11.0	14.5	22.7	16.6	16.8	12.0	7.0
	8.6-	12.0-	12.0-	14.5-	17.6-	14.7-	12.0-	12.6-
	4.0	5.5	5.0	6.1	6.6	6.6	5.2	4.2
W(Y)	1.5-	4.0-	4.3-	3.0-	0.2-	2.1	2.5	1.0-
	10.3	10.1	9.6	13.6	14.3	15.5	17.6	17.6
	19.2-	15.1-	15.6-	21.7-	21.7-	16.8-	14.5-	11.2-
	5.5	5.3	5.3	6.7	7.8	6.3	5.1	5.2

LATITUDE 25° - 30° N.

MARCH 1965

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3 18.0 22.0 13.1 1.5 48	3 3 18.5 24.5 15.0 1.8 67	3 3 17.8 23.1 14.5 1.7 54	3 3 18.3 23.0 15.2 1.5 76	3 3 19.2 23.7 15.5 1.5 181	3 3 19.0 25.0 15.5 1.5 221	4 4 18.1 26.0 14.0 1.6 152	4 3 16.7 22.0 13.1 1.7 91	
T(W)-T(A)	3 3 1.5 5.2 1.5- 1.5 48	3 3 1.0 5.0 3.2- 1.7 67	3 3 1.6 6.0 2.0- 1.7 54	3 3 1.5 5.5 6.0- 1.8 75	3 3 1.0 5.5 3.3- 1.6 177	3 3 0.9 5.0 7.0- 1.7 215	4 4 0.7 4.0 6.6- 1.6 149	4 3 1.0 3.8 5.0- 1.5 90	
E(W)-E(A)	3 3 5.6 14.1 2.1- 4.0 47	3 3 5.3 11.8 5.3- 3.7 67	3 3 6.8 16.5 1.3- 3.2 51	3 3 5.5 12.8 2.7- 3.0 63	3 3 5.1 14.6 1.0- 3.0 167	3 3 4.7 13.5 5.3- 3.3 211	4 4 4.5 11.7 1.1- 3.0 147	4 3 5.2 11.2 0.9 2.1 86	
EA	3 3 15.6 21.6 9.2 3.6 47	3 3 16.1 23.3 9.6 3.3 67	3 3 14.7 22.5 9.2 3.3 51	3 3 16.2 23.7 10.2 2.8 63	3 3 17.3 23.7 10.1 2.8 167	3 3 17.0 25.7 9.8 3.1 211	4 4 16.0 22.6 10.1 3.0 147	4 3 14.0 20.3 9.5 2.5 86	
C	3 3 0.7 1.0 0.0 0.3 44	3 3 0.8 1.0 0.1 0.3 68	3 3 0.6 1.0 0.1 0.3 54	3 3 0.6 1.0 0.0 0.3 76	3 3 0.7 1.0 0.0 0.3 177	3 3 0.7 1.0 0.0 0.3 222	4 3 0.7 1.0 0.0 0.3 153	4 3 0.7 1.0 0.0 0.3 90	
P	3 3 16.1 27.0 1.5- 6.8 49	3 3 16.2 26.0 0.3 5.5 68	3 3 18.7 25.0 9.0 3.8 54	3 3 18.0 28.6 7.3 5.0 76	3 3 18.0 29.5 5.0 5.1 182	3 3 19.7 30.6 8.6 4.6 223	4 3 21.0 30.0 11.0 4.0 155	4 3 21.7 28.5 5.2 4.1 91	
W	3 3 7.5 16.0 0.0 4.0 50	3 3 7.5 15.3 0.0 3.5 67	3 3 8.1 13.8 0.5 3.0 51	3 3 7.3 15.3 0.0 3.5 75	3 3 8.0 17.5 0.0 3.1 178	3 3 7.7 18.0 0.0 3.3 223	4 4 7.5 19.0 0.0 3.5 150	4 3 6.2 14.8 0.0 2.8 87	
W(X)	2.1 16.0 10.0- 6.5	0.6 10.2 9.5- 4.8	0.1- 11.1 10.5- 5.5	1.5- 8.5 11.0- 4.7	2.2- 9.8 16.3- 5.1	3.6- 11.6 14.1- 4.8	2.5- 10.6 16.5- 5.1	2.2- 9.3 13.0- 4.7	
W(Y)	1.3- 13.0 7.8- 4.7	1.5 15.1 10.6- 6.6	2.5- 10.1 12.8- 6.3	1.6- 12.8 14.5- 6.2	1.3 14.5 15.2- 6.5	1.2 12.0 16.8- 5.7	0.2 12.0 14.8- 6.0	0.8- 8.6 12.6- 4.3	

APRIL 1965

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3 18.8 24.0 14.0 2.1 69	3 3 19.1 22.5 15.6 1.5 46	3 3 19.6 27.6 16.5 2.0 42	3 3 19.7 24.2 16.5 1.6 59	2 3 19.8 23.7 16.5 1.5 146	3 3 19.2 25.0 14.0 1.7 188	4 3 18.2 27.6 15.5 2.0 152	4 3 16.8 21.0 13.5 1.5 103	
T(W)-T(A)	3 3 1.0 6.0 3.0- 2.0 69	3 3 0.6 2.7 2.8- 1.2 46	3 3 0.4 4.0 8.3- 2.2 41	3 3 0.8 6.3 4.5- 2.0 59	2 3 1.0 6.6 2.5- 1.5 145	3 3 0.9 6.0 4.2- 1.6 186	4 3 0.7 5.0 7.6- 2.0 148	4 3 1.0 6.0 3.8- 1.6 102	
E(W)-E(A)	3 3 4.2 14.5 3.0- 4.0 67	3 3 3.5 9.1 2.5- 2.6 45	3 3 3.5 10.6 0.8- 3.2 38	3 3 4.6 10.0 2.0- 3.2 56	2 3 5.5 10.8 0.2- 2.5 141	3 3 5.1 14.1 1.7- 2.8 186	4 3 5.3 14.7 2.3- 3.1 148	4 3 5.0 10.3 1.5- 2.7 102	
EA	3 3 17.6 25.0 10.0 3.8 67	3 3 18.0 24.1 10.5 3.0 45	3 3 18.6 25.0 12.8 3.0 38	3 3 18.0 23.8 12.0 2.8 56	2 3 17.7 24.5 12.5 2.5 141	3 3 17.0 23.7 10.6 3.0 186	4 3 15.2 23.3 7.1 2.8 148	4 3 14.2 21.1 8.5 2.5 102	
C	3 3 0.7 1.0 0.0 0.3 67	3 3 0.7 1.0 0.0 0.2 43	3 3 0.7 1.0 0.0 0.3 42	3 2 0.6 1.0 0.0 0.3 59	2 3 0.7 1.0 0.0 0.3 145	3 3 0.7 1.0 0.0 0.3 185	4 3 0.7 1.0 0.0 0.3 151	4 3 0.7 1.0 0.0 0.3 105	
P	3 3 18.5 32.7 3.0 6.8 67	3 3 19.1 30.1 7.5 7.0 48	3 3 20.5 28.6 8.0 5.7 42	3 3 22.3 31.2 8.0 5.0 57	2 3 23.0 32.0 7.0 4.5 133	3 3 22.1 31.0 7.6 5.2 184	4 3 22.1 29.0 8.1 4.8 149	4 3 21.6 29.5 13.7 3.8 106	
W	3 3 8.5 15.3 0.0 3.5 69	3 3 8.5 14.3 2.5 2.5 46	3 3 8.1 13.3 2.0 3.0 43	3 3 8.5 18.0 2.5 3.0 60	2 3 7.5 15.3 0.0 2.8 143	3 3 6.7 15.3 0.0 2.5 187	4 3 7.1 17.0 0.0 2.7 149	4 3 7.5 15.3 0.0 2.8 106	
W(X)	2.2- 10.6 13.0- 6.2	4.5- 12.3 13.5- 6.5	4.1- 10.0 13.1- 6.5	5.3- 8.1 16.8- 5.5	4.6- 8.3 13.2- 4.7	2.5- 12.3 10.0- 4.5	1.7- 13.8 10.1- 4.5	0.2- 15.3 9.0- 5.0	
W(Y)	1.7- 10.7 14.5- 6.1	0.8 11.0 8.0- 4.0	0.6 9.7 5.2- 3.8	0.1 10.5 8.6- 4.7	0.2- 9.3 11.8- 4.5	0.7- 12.0 11.8- 4.8	1.5- 17.0 13.0- 5.6	3.2- 12.5 13.5- 5.5	

MAY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	19.7	20.7	20.6	21.7	21.2	20.1	18.7	17.2
	23.7	26.5	24.0	29.2	25.0	28.0	25.0	23.1
	16.2	16.3	16.0	18.7	17.0	15.0	15.0	13.1
	2.0	2.3	2.0	1.8	1.3	1.6	1.8	1.8
	34	27	30	43	153	194	159	109
T(W)-T(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	1.2	0.4	0.3	0.4	1.0	0.9	0.9	1.0
	4.3	5.0	4.0	3.0	4.5	5.5	4.5	4.5
	3.8-	6.5-	3.2-	5.5-	3.3-	6.0-	5.7-	5.0-
	1.8	2.5	1.5	1.5	1.3	1.7	1.7	2.0
	34	27	30	43	153	192	158	109
E(W)-E(A)	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	6.2	4.7	3.5	4.0	5.6	6.0	5.8	5.2
	12.8	11.2	11.5	13.1	11.0	12.7	11.5	10.5
	1.3-	2.7-	0.6-	0.9-	0.3-	3.7-	3.5-	0.5-
	3.5	3.5	3.2	3.1	2.2	2.3	2.2	2.2
	34	27	30	42	146	191	157	109
EA	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	17.3	19.0	19.8	21.0	19.5	17.3	15.7	14.3
	24.6	25.7	26.3	25.6	24.3	24.6	24.5	20.0
	9.7	11.2	11.5	11.6	15.3	12.2	10.6	9.6
	4.0	4.0	4.2	2.7	1.6	2.0	2.2	2.2
	34	27	30	42	146	191	157	109
C	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	0.7	0.7	0.6	0.6	0.6	0.7	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	34	26	30	43	154	193	159	109
P	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	21.8	19.7	18.6	20.8	22.5	24.1	25.1	24.5
	26.5	26.0	26.6	26.0	28.2	32.0	31.0	30.0
	13.7	14.0	12.7	11.0	18.1	17.5	18.1	20.1
	3.0	3.5	3.6	3.2	1.8	2.0	2.3	2.5
	34	27	27	42	145	189	158	111
W	3 3	3 3	3 3	3 3	2 3	3 3	4 3	4 3
	6.2	7.5	6.3	7.1	7.3	7.2	6.7	6.3
	12.8	18.0	18.0	17.0	14.3	15.3	11.7	13.8
	1.5	1.5	0.0	2.5	0.0	1.5	1.0	1.5
	2.6	4.0	4.0	3.6	2.6	2.8	2.5	2.1
	34	27	30	43	152	192	158	110
W(X)	5.0-	4.5-	3.5-	5.7-	6.5-	6.3-	6.0-	3.8-
	1.0	3.5	5.7	4.6	0.7	3.2	2.2	2.8
	12.0-	17.6-	18.0-	17.0-	14.3-	15.1-	11.5-	13.0-
	3.0	5.6	5.6	4.5	3.0	3.1	2.8	2.7
W(Y)	2.0-	1.6-	1.1	1.5	1.0	0.2	1.6-	4.1-
	4.0	5.5	8.1	12.0	11.0	6.7	6.6	3.8
	7.2-	9.5-	3.8-	4.5-	11.1-	9.0-	7.5-	8.1-
	3.0	4.1	3.2	2.8	3.1	3.0	2.3	2.0

JUNE 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	24.2	23.8	23.5	22.8	22.2	21.1	20.0	18.1
	29.2	26.5	28.7	27.0	27.6	28.1	24.2	22.6
	20.0	21.0	21.0	19.5	18.1	16.5	16.6	15.0
	1.8	1.5	1.7	1.5	1.2	1.5	1.2	1.3
	39	27	33	37	129	180	148	125
T(W)-T(A)	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	0.1	0.5	0.4	1.2	1.0	1.0	1.0	0.9
	4.0	4.0	4.0	4.6	5.5	5.0	4.6	3.8
	5.1-	3.3-	6.6-	2.5-	6.6-	4.3-	4.1-	4.5-
	2.1	1.8	2.2	1.8	1.5	1.5	1.5	1.5
	36	27	30	35	119	177	147	124
E(W)-E(A)	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	5.0	5.7	6.6	7.3	6.7	6.8	6.7	4.7
	10.0	12.0	12.1	12.7	15.2	13.3	14.5	9.0
	1.1-	0.2	0.9	2.0	1.3	1.1	0.7-	0.8-
	3.0	3.0	2.8	2.7	2.2	2.3	2.5	2.1
	31	26	30	31	118	177	147	123
EA	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	23.8	23.0	21.6	20.7	20.1	18.2	16.6	16.0
	28.8	28.5	26.7	24.5	25.3	25.5	22.6	20.8
	20.0	20.7	19.0	15.6	15.8	14.6	12.2	12.5
	2.0	2.0	1.8	2.1	1.8	1.6	1.5	1.8
	31	26	30	31	118	177	147	123
C	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	39	27	33	38	130	180	148	125
P	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	20.8	22.5	23.1	23.3	23.7	24.0	24.2	22.3
	26.0	28.0	28.2	27.6	28.0	30.0	29.0	28.5
	13.0	14.7	18.0	19.5	19.6	5.6	18.1	3.0
	3.2	2.8	2.5	2.0	1.8	2.5	2.1	3.2
	40	27	33	38	129	179	145	124
W	3 3	4 3	4 3	3 2	2 3	3 3	4 3	4 3
	5.7	6.0	7.1	7.0	7.3	6.5	5.8	6.0
	10.2	10.2	15.3	12.8	14.3	13.3	11.7	12.3
	1.0	0.0	3.0	1.5	0.0	0.5	0.0	0.0
	2.5	2.5	3.0	3.0	2.8	2.6	2.5	2.6
	37	27	33	36	131	171	141	126
W(X)	3.0-	4.5-	5.0-	6.1-	6.5-	4.8-	4.0-	1.8-
	4.0	5.2	7.5	2.1	5.8	7.6	2.6	10.7
	9.0-	10.2-	14.5-	12.6-	13.0-	11.5-	11.0-	10.5-
	3.5	3.1	5.0	3.5	3.5	3.7	3.0	3.1
W(Y)	2.1	1.1	0.2-	1.0-	0.8-	1.2-	3.1-	4.6-
	9.2	7.7	6.5	6.2	5.0	7.0	3.2	4.7
	5.7-	6.2-	6.5-	7.2-	7.2-	7.6-	10.2-	10.2-
	3.5	3.5	3.1	2.5	2.5	2.8	2.5	2.6

LATITUDE 20° – 25° N.

JULY 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	25.6	25.6	25.0	24.1	23.3	23.5	22.1	20.6
	30.0	31.0	28.1	30.0	27.0	27.0	24.2	23.7
	23.0	22.2	23.1	21.0	21.0	21.5	21.0	17.6
	1.2	1.5	0.9	1.2	1.1	1.5	1.0	1.3
	66	89	70	179	102	22	8	17
T(W)-T(A)	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	0.5	0.0	0.6	0.7	0.7	0.1	0.4	0.8
	3.5	3.1	3.0	4.5	4.5	1.6	2.1	2.2
	5.0-	4.3-	3.2-	4.5-	3.8-	2.7-	2.6-	1.0-
	1.5	1.6	1.3	1.3	1.5	1.1	1.5	1.0
	66	87	62	174	101	22	8	17
E(W)-E(A)	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	5.5	5.1	5.8	5.8	5.3	4.1	3.5	4.5
	11.3	10.2	10.0	13.1	11.2	9.5	6.3	8.0
	2.3-	3.5-	4.1-	0.1-	0.8-	0.3	0.9	0.3
	2.7	2.7	2.5	2.2	2.1	2.2	1.7	2.0
	66	87	60	174	99	22	8	17
EA	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	26.2	26.0	24.8	23.7	22.7	23.2	22.0	19.5
	33.1	32.1	29.5	30.2	28.3	27.1	25.0	23.0
	21.5	21.8	21.5	19.2	18.3	17.1	18.5	16.1
	2.5	2.2	1.6	2.0	2.0	2.0	1.6	1.8
	66	87	60	174	99	22	8	17
C	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	0.5	0.5	0.4	0.6	0.7	0.7	0.7	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0
	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.8
	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1
	65	92	70	178	100	22	8	17
P	3 2	3 3	2 3	3 3	4 4	3 3	4 3	4 2
	17.5	17.6	17.5	18.8	19.2	18.0	19.0	17.7
	22.1	22.0	21.1	24.2	27.0	22.0	20.5	22.5
	13.0	12.0	14.0	15.0	14.8	15.5	17.5	12.5
	2.0	2.1	1.5	1.8	2.3	1.5	0.9	3.0
	67	92	69	173	95	21	8	17
W	3 2	3 3	2 3	3 3	4 4	3 4	4 3	4 2
	7.5	7.5	7.7	8.0	8.0	7.3	5.8	8.0
	12.8	14.3	15.3	18.0	13.8	10.2	9.2	10.2
	3.5	0.0	4.0	0.0	2.5	4.0	3.0	5.0
	2.0	2.1	2.2	2.0	2.0	1.5	2.0	1.5
	67	92	71	180	101	22	8	17
W(X)	7.1-	7.0-	7.0-	7.5-	7.5-	6.3-	4.3-	6.0-
	2.2-	0.0	1.1	0.0	2.0-	2.0-	0.0	3.7-
	12.6-	14.1-	15.3-	17.7-	13.0-	9.5-	9.2-	7.7-
	2.1	2.1	2.5	2.0	2.0	1.6	3.0	1.1
W(Y)	0.0	1.2-	1.7-	1.5-	2.1-	2.8-	3.0-	5.2-
	7.7	4.5	5.8	4.8	2.5	1.6	0.1-	3.2-
	4.6-	7.8-	9.0-	6.6-	8.3-	7.1-	4.6-	6.6-
	2.3	2.5	2.2	2.0	2.0	2.0	1.3	1.0

AUGUST 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	3 3	2 3	3 3	4 3	2 4	2 3	3 2
	26.5	26.0	25.7	24.5	23.7	23.6	23.2	21.7
	31.0	29.0	29.2	39.5	30.0	27.0	27.0	24.5
	24.2	24.0	22.6	21.7	21.0	21.0	21.5	20.0
	1.5	0.9	1.0	1.5	1.5	1.5	1.5	1.1
	54	99	109	201	113	27	13	13
T(W)-T(A)	2 2	3 3	2 3	3 3	4 3	2 4	2 3	3 2
	0.4	0.8	1.0	0.8	0.9	0.8	0.6	0.1
	3.0	4.0	4.2	4.7	4.5	4.5	3.8	2.6
	4.3-	3.7-	2.1-	13.6-	4.2-	3.3-	3.8-	2.8-
	1.5	1.5	1.1	1.6	1.5	1.8	2.2	1.6
	53	93	101	201	110	27	13	13
E(W)-E(A)	2 2	3 3	2 3	3 3	4 3	3 4	2 3	3 2
	6.5	7.0	7.8	6.6	6.6	6.2	6.6	5.3
	11.8	13.2	14.8	18.7	12.1	10.7	12.0	7.2
	0.1	0.4-	3.3-	0.9-	1.7-	3.0	2.0	2.6
	2.7	2.6	2.8	2.5	2.5	2.2	3.0	1.2
	53	92	100	199	109	26	13	13
EA	2 2	3 3	2 3	3 3	4 3	3 4	2 3	3 2
	27.0	26.3	25.3	23.8	22.5	22.5	21.0	19.2
	32.3	34.0	35.0	31.5	29.5	25.0	24.5	22.2
	22.5	23.5	22.0	12.3	17.6	18.8	15.8	16.5
	2.0	1.7	2.0	2.1	2.0	1.5	2.3	1.6
	53	92	100	199	109	26	13	13
C	2 2	3 3	2 3	3 3	4 3	2 4	2 3	3 2
	0.6	0.5	0.5	0.6	0.6	0.6	0.7	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.1	0.0	0.0	0.3	0.3
	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2
	53	100	111	203	114	27	13	13
P	3 2	3 3	2 3	3 3	4 3	2 4	2 3	3 2
	16.1	16.3	16.0	17.7	18.8	18.7	18.2	18.5
	19.1	19.1	19.5	22.0	22.5	22.2	20.0	19.5
	12.5	13.5	13.5	13.5	9.5	15.5	16.1	17.5
	1.5	1.1	1.2	1.5	2.0	2.0	1.0	0.7
	51	96	108	196	110	27	13	13
W	2 2	3 3	2 3	3 3	4 3	2 4	2 3	3 2
	5.6	6.5	7.6	7.6	7.3	7.3	8.2	5.5
	13.8	13.8	16.5	12.8	11.7	10.2	10.2	10.2
	0.0	1.5	1.5	1.0	1.0	3.5	5.0	2.0
	2.5	2.2	2.3	1.8	2.0	1.7	1.7	2.7
	55	99	111	204	112	27	13	13
W(X)	4.0-	6.0-	7.3-	7.3-	7.0-	6.8-	6.5-	3.5-
	4.7	0.0	1.5-	1.0-	1.0-	2.6-	3.8-	1.2
	13.8-	13.8-	16.5-	12.3-	11.7-	9.5-	10.2-	9.5-
	3.5	2.3	2.3	1.8	2.0	1.6	2.0	3.2
W(Y)	0.8	0.3-	0.2-	0.2-	0.2-	1.8-	4.2-	3.5-
	10.6	6.2	10.1	9.7	8.5	0.0	0.1-	1.5-
	5.2-	6.6-	5.2-	6.2-	5.1-	6.0-	7.1-	5.1-
	3.0	2.3	2.1	2.0	2.0	2.0	2.3	1.1

SEPTEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 4	4 3	3 3	3 3
	26.3	26.2	25.5	25.0	24.2	24.1	23.1	23.5
	30.5	31.0	28.6	30.1	28.7	26.5	23.7	27.1
	23.5	24.0	23.0	22.6	22.0	22.7	22.0	21.5
	1.0	1.0	1.0	1.2	1.0	1.1	0.5	1.2
	74	103	107	184	102	26	10	19
T(W)-T(A)	3 2	3 3	2 3	3 3	4 4	4 3	3 3	3 3
	0.6	0.4	1.0	0.8	1.0	0.7	0.6	0.3-
	3.5	3.2	3.2	3.8	3.3	3.2	2.2	3.8
	3.7-	4.2-	3.0-	4.0-	2.1-	3.3-	0.0	4.0-
	1.3	1.5	1.2	1.3	1.1	1.3	0.8	2.0
	71	94	101	181	102	26	10	19
E(W)-E(A)	3 2	3 3	2 3	3 3	4 4	4 3	3 3	3 3
	6.0	6.2	6.7	7.0	6.5	5.0	4.0	3.0
	12.8	12.0	13.5	15.0	12.6	8.7	6.1	10.2
	10.5-	1.7-	0.4	1.0-	0.7	0.7-	1.6	2.2-
	3.6	2.7	2.6	2.5	2.5	2.2	1.2	3.2
	69	94	100	177	100	26	9	18
EA	3 2	3 3	2 3	3 3	4 4	4 3	3 3	3 3
	27.5	26.5	25.6	24.5	24.0	24.5	23.3	23.5
	42.0	35.6	33.5	30.8	29.0	31.2	27.1	27.3
	22.5	21.7	20.5	17.5	18.1	21.1	20.5	16.3
	2.7	1.8	2.1	2.2	2.2	2.5	2.1	2.8
	69	94	100	177	100	26	9	18
C	3 2	3 3	2 3	3 3	4 4	4 3	3 3	3 3
	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.6
	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
	74	101	107	187	101	26	10	19
P	3 2	3 3	2 3	3 3	4 4	4 4	3 3	3 3
	16.3	16.1	16.0	16.3	16.6	16.0	15.3	14.5
	21.0	22.0	20.0	20.1	20.5	20.1	18.1	17.1
	12.7	11.0	11.5	8.6	12.5	12.5	10.0	11.7
	1.7	1.6	1.5	1.6	1.6	1.8	2.5	1.7
	72	98	105	181	98	24	10	11
W	3 2	3 3	2 3	3 3	4 4	4 4	3 3	3 3
	6.2	6.7	7.3	6.5	5.8	4.2	8.0	7.5
	12.8	12.8	12.8	18.0	18.0	9.2	18.5	10.7
	0.0	1.5	0.0	0.0	0.0	0.0	3.0	1.5
	2.6	2.6	2.7	2.8	3.2	2.3	5.1	2.0
	75	103	106	184	94	20	10	19
W(X)	5.3-	5.8-	6.5-	5.7-	4.6-	2.6-	5.3-	5.6-
	0.7	1.2	3.5	2.3	5.0	2.8	1.6-	0.0
	12.3-	12.8-	12.8-	17.0-	14.6-	8.0-	9.7-	9.1-
	2.8	3.0	3.0	2.8	3.5	2.6	2.5	2.6
W(Y)	1.8-	1.7-	1.0-	1.3-	1.7-	1.2-	4.2-	3.2-
	4.8	5.6	12.8	15.8	11.5	3.0	1.6	0.1-
	9.1-	9.1-	9.5-	6.6-	11.6-	7.0-	17.5-	10.1-
	2.5	2.3	2.8	2.5	2.8	2.7	6.0	3.0

OCTOBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 4	3 4	2 3	4 3
	26.2	26.1	25.3	24.7	23.8	23.7	23.8	22.5
	32.0	32.0	30.0	28.1	27.6	26.5	27.0	26.0
	23.7	22.7	23.0	22.0	21.6	21.5	21.5	20.5
	1.1	1.1	1.0	1.0	1.0	1.3	1.5	1.5
	87	114	114	199	99	18	11	13
T(W)-T(A)	3 2	2 3	2 3	3 3	4 4	3 4	2 3	3 3
	0.7	0.7	1.0	1.0	1.3	1.1	0.4	0.8
	3.8	4.6	3.5	5.0	3.8	3.3	1.5	2.2
	5.0-	5.5-	3.0-	2.1-	1.3-	0.6-	1.0-	1.7-
	1.2	1.3	1.0	1.2	1.1	1.1	0.9	1.2
	87	109	113	196	99	18	9	11
E(W)-E(A)	3 2	2 3	2 3	3 3	4 4	3 4	2 3	3 3
	7.2	7.3	7.5	7.5	7.8	7.6	5.6	5.8
	11.7	14.5	13.1	12.5	16.2	11.2	9.2	8.6
	0.1	2.0-	6.3-	1.5	0.6-	4.0	2.8	4.0
	2.5	2.7	2.5	2.0	2.3	1.7	1.7	1.3
	87	109	113	196	98	18	9	11
EA	3 2	2 3	2 3	3 3	4 4	3 4	2 3	3 3
	26.2	25.8	25.0	23.7	22.5	22.2	22.0	21.0
	33.3	33.6	40.1	29.7	29.3	27.5	26.5	23.6
	21.0	20.0	19.5	18.5	14.3	16.5	18.5	16.1
	2.3	2.3	2.3	1.8	2.5	3.0	2.1	2.0
	87	109	113	196	98	18	9	11
C	3 2	2 3	2 3	3 3	4 4	3 4	2 3	4 3
	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3
	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3
	88	113	114	207	101	18	9	12
P	3 2	2 3	2 3	3 3	4 4	3 4	3 3	4 3
	17.0	16.6	16.8	18.0	18.5	17.1	18.2	19.0
	20.0	21.5	20.1	22.5	23.0	19.5	21.1	22.2
	11.8	12.6	13.2	11.7	14.5	15.0	14.7	15.0
	2.0	1.6	1.5	1.6	2.0	1.0	2.0	2.5
	83	110	111	189	89	14	9	11
W	3 2	2 3	2 3	3 3	4 4	3 4	2 3	4 3
	7.5	6.6	7.1	6.8	6.3	6.3	5.0	5.0
	12.8	12.8	14.3	13.8	11.2	10.2	8.1	7.6
	2.0	2.0	0.5	0.0	0.0	2.0	2.5	0.0
	2.3	2.3	2.5	2.3	2.0	2.0	2.0	2.0
	86	114	113	205	99	18	11	13
W(X)	6.7-	6.0-	6.5-	6.2-	5.6-	4.8-	3.6-	3.2-
	1.2	0.7	0.0	3.0	4.8	0.7	0.0	0.0
	12.8-	12.8-	11.2-	13.0-	11.2-	8.1-	7.0-	7.0-
	2.5	2.3	2.5	2.6	2.5	2.1	2.0	2.2
W(Y)	0.1-	1.0-	1.0-	1.0-	1.1-	3.1-	3.0-	2.2-
	9.1	4.0	4.5	7.8	4.0	0.0	0.5-	5.7
	6.6-	10.6-	9.3-	6.6-	6.3-	7.8-	6.0-	6.0-
	3.0	2.5	2.5	2.5	2.2	2.5	1.5	2.8

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NOVEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 2
	25.1	25.0	24.8	23.8	23.3	23.0	22.6	22.0
	30.0	28.5	27.6	28.0	28.0	26.0	25.0	24.2
	21.0	21.0	21.7	20.0	19.2	21.0	21.0	20.0
	1.3	1.2	1.0	1.2	1.3	1.2	1.1	1.0
	78	91	73	178	118	30	12	20
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 2
	1.0	1.0	1.0	1.1	1.1	0.9	1.3	1.1
	5.5	4.5	3.5	5.5	6.1	3.2	3.2	3.7
	3.0-	2.7-	2.7-	4.5-	8.8-	1.6-	1.0-	1.0-
	1.5	1.3	1.1	1.3	1.7	1.1	1.1	1.3
	77	88	72	175	118	30	10	20
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 3
	6.8	7.0	7.7	7.2	7.1	5.6	6.0	4.8
	13.0	15.5	15.3	16.8	15.5	9.5	10.0	9.1
	0.7-	0.1-	0.3	1.5-	0.9-	2.5	0.1	1.0-
	3.1	2.8	2.7	2.8	2.8	1.8	3.1	2.6
	77	88	71	173	117	26	8	16
EA	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 3
	25.2	24.7	23.7	22.7	21.7	22.6	22.1	22.1
	31.0	31.0	31.2	32.2	30.6	28.5	28.3	24.7
	18.0	16.0	16.1	14.6	14.8	18.5	18.5	19.2
	3.1	3.1	2.2	2.5	2.5	1.8	3.0	1.8
	77	88	71	173	117	26	8	16
C	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 3
	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	78	91	75	180	117	32	13	22
P	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 2
	15.5	16.5	17.1	18.0	18.7	18.3	21.0	19.1
	21.1	21.5	21.5	22.0	24.5	26.0	25.0	25.1
	8.0	12.5	5.0	12.0	9.0	5.6	18.0	15.5
	3.0	1.8	2.3	2.2	3.1	4.3	2.3	2.5
	79	93	74	172	113	29	12	20
W	3 2	2 3	2 3	3 3	4 3	3 4	3 3	3 2
	6.6	6.3	7.1	6.3	6.7	6.6	6.7	7.0
	15.3	12.3	25.6	13.8	13.8	11.2	12.3	16.5
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.5	2.5	3.5	2.5	2.7	3.0	3.5	4.7
	79	92	72	181	118	30	12	17
W(X)	3.3-	4.0-	5.6-	5.0-	4.7-	4.3-	5.8-	5.3-
	11.0	10.6	2.6	3.8	6.5	7.0	0.1	3.0
	12.8-	12.3-	11.3-	12.0-	12.0-	11.2-	12.0-	15.3-
	4.7	3.8	3.1	3.1	3.5	4.7	4.1	5.0
W(Y)	1.0	0.3	0.7-	0.0	0.2-	0.2-	1.8-	2.7-
	13.5	8.1	6.2	7.7	8.1	6.1	1.0	1.2
	10.1-	9.6-	25.6-	13.0-	13.0-	8.1-	6.1-	8.0-
	4.5	4.0	4.5	3.6	4.2	3.1	2.0	3.0

DECEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	22.8	23.3	23.7	23.3	22.7	22.5	22.6	20.5
	26.0	28.0	27.0	26.5	26.0	26.5	25.0	21.5
	18.7	19.2	21.5	19.2	18.7	15.0	21.1	18.1
	1.5	1.3	1.0	1.2	1.3	2.5	1.2	1.0
	76	99	111	178	110	27	10	7
T(W)-T(A)	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	2.1	1.7	1.3	1.5	1.2	1.3	0.6	2.0
	6.1	5.0	4.5	6.6	4.3	6.5	2.0	3.8
	2.7-	2.6-	1.7-	3.7-	2.0-	2.2-	1.0-	0.5-
	1.6	1.3	1.2	1.5	1.3	1.8	1.0	1.2
	76	96	106	178	110	27	10	7
E(W)-E(A)	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	10.3	9.1	7.2	7.1	6.5	8.0	7.6	4.7
	18.7	18.0	14.6	16.0	16.3	14.1	10.1	9.0
	0.9	2.0	0.5	0.9-	1.1	2.5	5.0	1.3
	3.7	3.1	2.7	3.0	2.8	2.7	1.7	2.5
	76	96	106	178	110	27	10	7
EA	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	19.6	21.0	22.8	22.3	21.5	20.0	19.0	20.8
	27.3	29.5	28.0	30.5	26.6	26.0	21.2	22.6
	12.8	13.1	13.8	12.5	12.0	12.2	16.5	17.6
	3.5	3.0	2.3	2.5	2.5	3.5	1.5	1.6
	76	96	106	178	110	27	10	7
C	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	0.5	0.4	0.4	0.5	0.5	0.6	0.5	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
	80	102	113	183	113	27	10	7
P	3 2	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	16.5	15.8	15.1	15.8	17.1	18.2	17.8	16.2
	22.0	26.0	20.5	22.5	22.5	23.0	23.2	19.5
	8.5	7.1	8.5	9.0	8.5	14.5	11.7	12.1
	2.7	3.1	2.5	2.5	3.0	2.5	3.7	2.7
	76	99	112	181	108	25	10	7
W	3 3	2 3	2 3	3 3	4 4	2 4	1 3	2 2
	6.0	5.1	5.0	5.8	6.8	6.6	6.7	6.2
	15.3	16.0	14.3	14.5	18.0	10.7	10.2	7.6
	0.5	0.0	0.3	0.0	0.0	2.5	4.5	5.0
	3.3	3.2	2.8	3.0	3.1	2.2	1.6	1.0
	77	101	110	174	109	26	10	7
W(X)	0.7-	0.2	0.3-	1.5-	2.5-	6.2-	6.3-	2.5-
	11.1	11.6	11.0	12.8	13.8	1.0	4.0-	1.0-
	14.5-	8.1-	8.7-	8.5-	17.0-	10.7-	9.5-	4.0-
	4.5	4.5	4.2	4.0	4.7	2.6	1.6	1.1
W(Y)	2.2-	2.0-	0.4	2.5	3.5	0.1-	1.1-	3.5-
	9.6	5.5	9.5	14.0	12.8	2.8	1.8	3.2
	13.2-	14.8-	13.5-	13.8-	7.2-	5.6-	5.0-	7.2-
	4.6	3.5	3.8	4.5	3.8	2.0	2.0	4.3

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	2 3	2 3	3 3	3 3	3 4	4 3	4 2
	23.5	23.3	23.2	22.6	22.2	21.7	20.2	20.1
	26.0	26.1	27.5	27.0	27.6	25.0	24.0	25.0
	21.0	21.0	20.1	18.1	18.2	18.7	19.0	17.0
	1.0	1.0	1.1	1.1	1.5	1.1	1.3	2.0
	69	91	73	178	126	34	13	16
T(W)-T(A)	2 3	2 3	2 3	3 3	3 3	3 4	4 3	4 2
	1.2	1.0	1.0	1.3	0.9	0.9	1.0	1.0
	3.7	3.0	4.5	6.1	4.5	2.6	2.0	7.1
	1.0-	1.0-	3.0-	2.0-	3.3-	1.3-	0.4-	2.8-
	1.0	0.9	1.5	1.1	1.5	1.0	0.6	2.0
	68	83	70	175	124	31	12	16
E(W)-E(A)	2 3	2 3	2 3	3 3	4 3	3 4	4 3	4 3
	7.2	6.6	6.2	6.7	6.0	6.8	6.6	6.5
	11.2	11.1	12.6	15.3	13.0	14.1	9.6	13.2
	1.6	0.3-	0.5	1.2	1.7-	1.0	3.0	3.6
	2.1	2.3	2.3	2.5	2.6	2.8	1.6	2.1
	56	63	59	161	114	30	12	15
EA	2 3	2 3	2 3	3 3	4 3	3 4	4 3	4 3
	22.3	22.3	22.2	21.3	20.5	19.0	17.0	17.3
	29.0	31.0	29.0	27.1	29.5	25.6	25.0	21.0
	17.5	19.1	18.5	13.8	13.2	14.3	13.6	14.7
	1.8	1.6	2.1	2.5	2.7	2.8	2.7	2.0
	56	63	59	161	114	30	12	15
C	2 3	2 3	2 3	3 3	3 3	3 4	4 3	4 2
	0.5	0.4	0.5	0.6	0.6	0.6	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	72	91	74	181	129	35	13	17
P	2 3	2 3	2 3	3 3	3 3	3 4	5 3	4 2
	18.3	18.0	18.6	19.7	20.6	21.6	24.0	22.8
	25.0	24.0	26.0	28.2	26.7	26.0	27.2	27.0
	11.7	9.0	10.2	9.5	13.0	14.7	20.5	19.5
	2.5	3.6	3.2	3.6	2.6	2.6	2.1	1.6
	73	91	74	178	126	32	11	17
W	2 3	2 3	2 3	3 3	3 3	3 4	4 3	4 2
	8.0	8.3	8.2	8.5	8.3	9.3	8.5	7.2
	15.3	18.5	15.3	18.0	15.3	15.3	12.8	15.3
	0.0	0.0	1.0	0.0	1.5	4.0	6.1	1.0
	3.2	3.8	3.5	3.5	3.1	3.1	2.0	3.2
	72	91	74	183	130	35	13	17
W(X)	6.0-	6.6-	6.5-	7.3-	7.3-	8.6-	8.2-	5.3-
	2.2	5.0	8.6	3.8	1.6	3.2-	5.7-	3.0
	12.3-	17.3-	15.1-	17.5-	14.8-	15.3-	12.0-	14.5-
	3.2	4.2	4.6	3.7	3.3	3.1	1.8	4.3
W(Y)	3.8-	3.0-	1.5-	0.4-	0.2-	1.8-	1.3-	3.1-
	7.7	5.7	7.7	15.3	10.1	4.2	1.2	1.2
	11.1-	10.2-	9.8-	12.0-	9.0-	11.0-	4.5-	8.1-
	3.7	3.5	3.6	4.0	3.8	3.1	1.5	2.5

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	2 3	2 3	3 3	3 3	2 4	2 3	2 3
	23.2	23.1	22.6	22.1	21.2	21.1	20.1	19.3
	27.0	28.0	25.7	28.7	26.0	25.5	22.2	21.0
	20.5	21.0	19.0	19.0	18.1	18.7	19.0	18.0
	1.0	1.0	1.0	1.3	1.3	1.6	1.1	0.9
	99	121	125	203	114	29	9	13
T(W)-T(A)	2 2	2 3	2 3	3 3	3 3	2 4	2 3	2 3
	0.9	0.8	1.0	1.3	1.5	1.0	1.5	1.1
	5.0	3.8	5.5	4.7	5.2	3.3	3.8	4.5
	5.2-	5.2-	4.5-	4.5-	2.0-	3.3-	1.2-	0.0
	1.6	1.5	1.3	1.3	1.3	1.6	1.7	1.1
	96	118	120	200	109	28	9	13
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 4	2 2	2 3
	6.6	6.7	7.7	8.1	7.8	7.0	6.2	4.6
	12.6	13.5	13.7	14.2	12.0	13.5	13.1	8.0
	2.7-	2.5-	0.2	3.7-	0.9-	0.9-	0.2	1.5
	3.0	2.6	2.5	2.5	2.3	3.3	4.0	2.0
	91	111	116	197	105	24	6	9
EA	3 2	2 3	2 3	3 3	4 3	3 4	2 2	2 3
	21.8	21.3	20.0	19.0	18.2	18.5	19.2	18.5
	28.0	26.0	25.1	31.0	26.7	26.7	23.0	21.0
	17.8	15.8	15.5	14.0	13.1	11.3	15.2	15.5
	2.0	1.6	1.8	2.1	2.1	3.0	2.2	1.6
	91	111	116	197	105	24	6	9
C	2 2	2 3	2 3	3 3	3 3	2 4	2 3	2 3
	0.4	0.4	0.4	0.5	0.5	0.5	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0
	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.4
	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2
	101	125	125	211	121	30	9	13
P	2 2	2 3	2 3	3 3	3 3	2 4	2 3	2 3
	19.0	19.0	19.5	20.5	20.7	20.2	18.8	20.5
	25.0	24.0	25.6	28.0	28.6	25.0	22.5	22.0
	14.0	14.5	13.5	14.5	15.0	14.7	12.5	19.1
	2.8	2.3	3.0	2.7	2.8	2.5	3.0	0.9
	100	125	124	208	120	30	9	13
W	2 2	2 3	2 3	3 3	3 3	2 4	2 3	2 3
	6.7	7.2	8.3	8.5	8.0	8.3	11.3	8.8
	12.8	12.8	18.0	20.5	18.0	13.3	20.5	23.1
	1.5	2.0	0.5	0.0	2.5	4.5	8.1	4.0
	3.0	2.6	3.1	3.0	2.6	2.1	3.7	4.5
	99	124	125	211	121	30	9	13
W(X)	5.5-	6.3-	7.5-	7.5-	7.0-	7.0-	8.3-	7.5-
	2.5	0.8	2.3	3.8	2.8	6.0	6.5-	3.8-
	12.8-	12.6-	17.6-	20.1-	16.8-	11.5-	9.7-	21.6-
	3.6	2.8	3.2	3.7	3.0	3.3	1.0	4.2
W(Y)	0.3-	0.9-	1.5-	0.6-	1.2-	2.6-	6.5-	4.5-
	8.8	6.5	9.7	9.7	5.8	3.7	1.6-	0.0
	9.0-	9.6-	10.0-	7.8-	10.1-	8.0-	19.3-	8.0-
	3.1	3.1	3.0	3.2	3.3	2.3	5.3	2.5

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 3	3 4	2 3	4 3
	23.2	22.7	22.7	22.0	21.1	20.6	20.0	19.1
	27.0	26.0	26.0	28.0	26.0	24.0	24.0	24.0
	20.0	19.2	20.0	18.7	18.0	18.1	17.0	18.0
	1.3	1.1	1.0	1.2	1.2	1.1	1.3	1.7
	115	136	145	235	141	38	21	15
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	3 4	2 3	4 3
	1.0	0.9	0.8	1.1	1.1	1.3	0.9	0.5
	5.0	4.5	3.7	5.0	4.7	4.5	2.6	2.5
	5.2-	5.6-	6.1-	2.7-	5.C-	2.5-	4.0-	5.0-
	1.5	1.6	1.3	1.3	1.5	1.5	1.3	1.7
	106	131	137	225	132	37	18	13
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 4	2 3	4 4
	6.2	5.8	5.5	6.3	6.7	7.5	7.0	7.1
	12.5	16.7	15.1	14.8	13.0	12.6	10.5	10.1
	2.2-	2.0-	4.0-	0.6-	0.1-	2.2	4.5	3.5
	2.6	2.8	3.0	2.2	2.2	2.5	1.8	1.7
	93	116	127	215	117	26	12	9
EA	3 2	2 3	2 3	3 3	4 3	3 4	2 3	4 4
	22.1	21.8	21.7	20.1	18.5	18.0	17.0	14.5
	25.7	25.7	28.6	25.5	26.3	22.6	19.2	17.0
	16.8	16.5	12.0	13.7	11.5	14.0	14.0	12.3
	2.2	2.0	2.2	2.0	2.1	2.1	1.7	1.5
	93	116	127	215	117	26	12	9
C	3 2	3 3	2 3	3 3	4 3	3 4	2 3	4 4
	0.6	0.5	0.5	0.7	0.6	0.8	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.1	0.3	0.1	0.3
	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3
	117	136	140	234	140	39	21	16
P	3 2	3 3	2 3	3 3	4 3	3 4	2 3	4 4
	17.5	17.7	18.5	19.6	21.5	21.5	21.6	20.7
	23.2	27.0	26.3	27.2	29.5	28.0	26.0	28.0
	12.5	11.0	9.7	12.5	13.7	15.7	15.7	7.0
	2.1	2.5	2.8	3.0	3.1	3.0	2.6	5.2
	117	137	146	236	143	39	17	14
W	3 2	3 3	2 3	3 3	4 3	3 4	2 3	4 4
	7.5	7.0	8.0	8.7	9.1	9.7	9.5	6.2
	15.3	14.3	17.0	18.0	15.3	15.3	14.3	10.7
	0.0	1.0	1.5	0.0	2.5	5.0	2.5	0.0
	3.3	3.2	3.0	3.1	3.0	2.5	2.8	3.5
	114	136	144	237	143	39	21	16
W(X)	6.3-	5.0-	6.8-	7.5-	8.0-	8.8-	7.2-	2.5-
	3.1	8.1	7.5	4.3	4.0	0.1	4.5	9.3
	15.1-	13.6-	15.8-	18.0-	15.3-	15.3-	12.6-	8.6-
	3.8	4.1	4.0	4.0	4.2	3.0	4.0	4.8
W(Y)	0.8-	1.2-	0.0	0.4	0.2-	1.5-	3.2-	3.5-
	7.7	8.0	8.1	8.6	7.0	5.5	3.5	2.3
	12.5-	13.5-	7.6-	12.5-	11.1-	12.8-	14.3-	9.3-
	3.6	3.7	3.2	3.5	3.2	3.0	4.1	2.7

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 2
	22.7	22.8	23.1	22.1	21.0	21.0	19.8	18.0
	29.0	28.1	28.6	28.7	24.5	26.5	22.0	21.C
	19.5	18.7	20.6	20.0	18.1	18.7	15.5	16.0
	1.5	1.3	1.1	1.2	1.1	1.6	1.5	1.3
	74	112	118	205	138	34	14	21
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 2
	1.0	0.7	0.4	0.9	1.2	0.8	1.0	1.5
	6.2	3.3	4.2	6.0	4.3	4.2	4.5	4.0
	3.0-	5.0-	6.5-	6.0-	2.1-	3.8-	0.7-	0.0
	1.5	1.5	1.7	1.5	1.3	2.0	1.1	1.0
	71	111	118	200	136	30	12	17
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 2
	6.0	5.3	5.7	6.1	6.6	6.2	7.0	6.5
	14.1	14.0	15.0	13.5	15.2	14.8	9.0	9.5
	0.1-	2.0-	5.3-	5.5-	0.5-	0.9	2.5	2.6
	3.0	2.7	2.7	2.5	2.3	2.7	1.8	1.8
	71	108	116	200	136	30	12	15
EA	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 2
	22.0	22.1	21.6	20.5	18.7	18.2	16.2	15.5
	28.3	27.6	25.1	30.5	25.3	24.7	20.8	20.5
	13.5	12.5	14.6	15.0	13.2	13.5	13.5	10.6
	3.2	2.5	1.6	2.0	2.0	2.3	2.0	2.2
	71	108	116	200	136	30	12	15
C	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 2
	0.7	0.7	0.6	0.6	0.6	0.7	0.8	0.7
	1.C	1.0	1.0	1.0	1.C	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.0	0.1	0.4	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
	73	116	119	209	138	34	14	21
P	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 2
	18.3	19.0	18.5	21.0	22.5	22.0	21.5	20.6
	26.0	27.1	24.0	25.2	27.2	26.0	28.6	28.6
	12.5	11.1	13.7	13.7	16.7	18.0	18.C	15.2
	3.1	2.8	2.2	2.1	2.1	2.2	2.7	3.C
	74	116	121	209	137	34	14	21
W	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 2
	7.8	8.0	8.5	8.3	8.5	8.0	8.5	7.5
	18.0	14.3	17.5	15.3	13.8	15.3	12.8	10.2
	0.C	0.0	1.0	C.0	1.7	1.5	4.0	3.0
	3.5	3.0	3.0	2.0	2.2	3.1	2.6	2.0
	73	114	120	208	138	33	14	17
W(X)	6.1-	6.5-	7.3-	7.7-	8.0-	7.0-	7.5-	5.0-
	8.1	6.0	3.5	3.0	1.2-	1.5-	4.0-	2.0
	13.2-	13.5-	16.3-	15.3-	13.6-	14.5-	11.5-	7.7-
	4.0	3.6	3.5	2.2	2.3	3.0	2.0	2.6
W(Y)	2.0-	1.5-	0.1	0.1	1.C-	3.1-	3.6-	5.0-
	6.2	10.1	8.2	8.6	6.5	1.6	0.1-	2.2-
	15.6-	9.0-	7.0-	7.0-	5.6-	9.8-	8.3-	7.7-
	4.0	3.5	3.6	3.0	2.3	2.2	2.3	1.6

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	3 3	2 3	1 3	3 2
	24.1	24.0	23.5	22.5	21.6	21.7	21.5	19.5
	29.2	27.6	27.0	30.0	27.6	26.0	24.2	22.5
	19.0	21.5	21.2	19.2	18.7	18.1	18.0	15.5
	1.5	1.0	1.0	1.3	1.5	1.7	1.5	1.6
	104	130	87	209	138	34	14	21
T(W)-T(A)	3 2	2 3	2 3	3 3	3 3	2 3	1 3	3 3
	0.1	0.5	0.5	0.7	0.8	0.4	0.2	1.0
	3.3	3.8	2.7	4.2	5.5	3.3	2.2	3.5
	5.2-	6.0-	3.3-	6.7-	4.5-	2.7-	1.6-	1.5-
	1.6	1.5	1.2	1.5	1.3	1.3	1.1	1.0
	102	130	87	209	137	33	14	20
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	2 3	1 3	3 3
	4.7	5.8	6.5	6.5	6.5	4.1	4.7	5.5
	9.7	11.5	13.6	14.0	11.5	7.7	7.8	10.8
	1.2-	2.0-	0.4-	0.8	1.0	0.6	0.6	2.3
	2.5	2.7	2.5	2.1	2.3	2.3	2.6	2.8
	97	129	87	205	133	30	9	12
EA	3 2	2 3	2 3	3 3	4 3	2 3	1 3	3 3
	24.0	23.0	21.6	20.1	19.0	20.8	19.5	17.0
	29.8	29.8	27.6	26.8	25.8	26.5	22.6	21.5
	18.8	18.5	14.7	13.3	12.5	13.7	15.5	11.0
	2.2	2.1	2.0	2.0	2.5	3.5	2.5	3.5
	97	129	87	205	133	30	9	12
C	3 2	2 3	2 3	3 3	3 3	2 3	1 3	3 2
	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.4
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
	104	130	87	208	137	34	14	21
P	3 2	2 3	2 3	3 3	3 3	2 3	1 3	3 2
	16.5	17.3	18.1	20.1	21.0	19.8	19.2	19.5
	20.7	21.5	28.0	25.2	28.7	26.2	23.6	27.2
	10.7	13.0	9.6	14.7	12.7	15.0	16.2	15.7
	2.2	1.5	2.2	2.0	2.8	2.5	1.8	3.1
	103	129	87	210	138	35	14	21
W	3 2	2 3	2 3	3 3	3 3	2 3	1 3	3 2
	8.3	8.0	8.0	8.2	8.3	8.3	7.2	6.6
	17.0	15.3	15.3	13.5	17.5	20.5	10.7	10.2
	2.0	0.0	0.0	0.5	0.5	4.5	4.5	3.5
	2.2	2.2	3.1	2.7	3.2	3.0	1.8	1.6
	103	130	87	205	137	35	14	21
W(X)	7.0-	7.5-	7.5-	7.8-	7.5-	7.6-	5.6-	4.5-
	8.1	0.0	5.5	0.5-	5.6	2.6-	3.5-	0.8-
	17.0-	15.3-	15.1-	13.3-	16.3-	20.5-	8.1-	6.5-
	3.2	2.5	3.5	2.7	4.0	3.0	1.3	1.5
W(Y)	1.5	0.3	1.0-	1.2-	1.8-	2.2-	4.5-	4.7-
	11.5	8.0	4.2	5.1	6.5	3.2	0.0	1.2-
	7.7-	6.0-	7.3-	8.1-	8.5-	7.7-	7.0-	7.8-
	3.5	2.7	2.0	2.0	2.5	2.3	1.7	1.2

JUNE 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	25.5	25.2	24.6	23.8	23.2	23.0	21.0	20.8
	30.6	28.1	27.0	30.0	31.0	27.6	22.0	26.0
	22.6	22.0	22.1	20.7	21.0	20.0	20.0	19.2
	1.2	1.1	1.0	1.1	1.5	1.6	0.6	1.5
	76	106	115	221	133	36	8	21
T(W)-T(A)	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	0.5	0.8	0.9	0.9	0.7	0.2	1.8	0.9
	3.3	3.8	4.1	5.7	4.5	4.0	2.3	2.7
	3.0-	2.7-	4.3-	5.6-	6.0-	3.3-	1.0	2.7-
	1.2	1.3	1.3	1.5	1.6	1.6	0.4	1.3
	75	99	105	213	130	36	8	21
E(W)-E(A)	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	5.6	6.3	6.6	6.3	6.0	5.5	5.7	4.0
	10.8	10.6	12.3	13.5	11.0	10.1	8.0	8.2
	2.0-	1.7-	1.3-	0.6-	0.9	2.7	3.2	0.8
	3.0	2.5	2.6	2.3	2.1	1.6	1.5	2.0
	65	94	103	210	127	34	8	21
EA	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	26.2	25.5	24.1	23.0	21.8	21.0	20.5	20.5
	32.1	30.0	28.7	29.1	28.7	25.2	23.3	24.0
	22.3	22.2	19.0	17.7	17.1	16.5	18.0	15.8
	2.0	1.5	2.0	1.7	1.8	2.2	1.7	2.5
	65	94	103	210	127	34	8	21
C	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.0	0.0	0.1	0.4	0.4
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	75	107	114	225	133	36	8	21
P	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	17.1	17.1	17.5	19.0	19.8	19.3	18.5	19.0
	20.5	20.5	21.5	24.0	24.5	23.0	20.1	21.0
	13.0	12.0	11.0	14.0	14.5	16.5	16.7	17.5
	1.5	1.6	1.8	2.0	2.2	2.0	1.1	0.9
	75	103	115	224	131	31	8	21
W	3 2	3 3	2 3	3 3	4 4	3 4	2 3	3 2
	6.8	7.0	7.5	7.5	7.5	7.0	7.7	6.1
	11.7	12.8	16.5	15.3	14.8	13.8	10.2	10.2
	0.0	1.0	0.0	0.0	0.0	0.5	3.0	2.5
	3.0	2.7	3.3	3.0	2.8	3.0	2.7	2.0
	73	104	115	222	133	36	8	21
W(X)	5.5-	6.0-	6.5-	6.5-	6.5-	6.0-	7.1-	4.5-
	3.0	5.0	6.1	8.0	6.5	1.0	2.2-	0.4-
	11.5-	12.1-	15.3-	14.5-	14.6-	11.0-	10.2-	10.0-
	3.7	3.5	4.1	4.1	3.7	2.7	2.7	2.5
W(Y)	0.6	0.3-	1.1-	0.5-	1.0-	1.8-	2.0-	3.5-
	9.0	8.3	6.2	7.0	7.1	10.5	0.0	0.1-
	5.6-	6.0-	9.8-	7.5-	10.7-	9.0-	6.6-	7.2-
	3.3	3.0	2.7	2.5	2.5	3.1	1.8	2.0

JULY 1964

LATITUDE 20° – 25° N.

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 3
	25.6	25.6	25.0	24.0	23.3	22.5	21.6	20.8
	30.0	30.0	28.1	28.7	27.0	29.0	24.0	24.1
	23.1	23.1	23.1	21.5	20.5	20.0	20.3	19.1
	1.0	1.1	1.0	1.0	1.1	1.5	0.9	1.1
	82	100	137	206	116	38	24	23
T(W)-T(A)	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 3
	0.7	0.5	0.8	0.8	0.7	0.7	1.0	1.0
	4.0	3.7	3.8	4.0	3.5	3.7	4.5	4.8
	3.3-	5.0-	3.1-	3.3-	3.7-	6.0-	1.0-	3.1-
	1.2	1.2	1.3	1.3	1.2	1.8	1.5	1.8
	80	98	129	205	115	37	24	23
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	6.5	6.8	7.3	6.2	5.6	5.0	4.5	4.5
	13.0	12.2	13.0	11.8	10.7	10.1	12.2	11.2
	2.7	6.1-	2.0	1.2	0.5-	0.1-	0.9-	1.0-
	2.0	2.5	2.1	2.2	2.2	2.0	3.5	3.7
	76	94	127	200	110	35	24	23
EA	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	25.8	25.0	24.0	23.3	22.5	21.8	21.5	20.2
	29.5	37.7	29.5	27.6	28.0	26.7	26.1	24.8
	22.3	20.0	20.3	18.0	18.7	17.5	16.3	15.0
	1.6	2.3	1.6	1.7	2.0	2.0	2.8	2.8
	76	94	127	200	110	35	24	23
C	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 3
	0.5	0.5	0.5	0.6	0.7	0.7	0.9	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.1	0.1	0.1	0.5	0.6
	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.1
	87	102	136	211	117	38	26	24
P	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 3
	18.5	18.5	17.8	19.1	19.3	17.6	16.2	16.1
	22.1	22.0	23.2	23.5	23.5	25.5	22.0	21.0
	14.0	14.5	13.0	10.0	14.6	11.7	11.7	8.5
	2.0	1.6	2.0	1.8	2.1	2.7	2.8	3.7
	84	102	137	210	114	39	26	24
W	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 3
	7.6	8.5	8.5	8.2	8.3	7.8	8.6	9.6
	16.0	16.5	14.3	14.3	13.8	10.7	11.2	18.0
	2.5	0.0	0.0	2.5	2.5	5.0	5.0	4.0
	2.3	2.5	2.3	2.1	2.0	1.6	1.6	3.1
	87	101	137	211	117	39	25	22
W(X)	7.1-	7.8-	7.5-	7.6-	7.3-	6.2-	6.0-	4.5-
	1.5-	0.0	2.5	1.5-	0.1	1.7	0.1	0.2
	12.8-	15.3-	13.5-	13.5-	13.0-	10.0-	9.5-	9.2-
	2.3	2.5	2.6	2.0	2.1	2.2	2.5	3.1
W(Y)	1.2-	2.0-	2.5-	2.2-	3.0-	4.1-	4.6-	7.0-
	3.2	2.7	2.8	4.0	2.8	0.1-	8.1	3.0
	15.6-	9.6-	8.5-	9.0-	9.3-	10.1-	11.2-	18.0-
	2.5	2.2	2.5	2.1	2.2	1.6	3.6	4.8

AUGUST 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	2 4	2 3	3 3
	26.0	25.7	25.3	24.7	24.2	24.0	23.5	21.8
	32.0	29.6	28.7	29.2	29.0	27.6	29.0	25.0
	23.7	23.5	21.6	21.0	21.0	22.0	21.0	20.0
	1.3	1.0	0.9	1.1	1.5	1.3	2.0	1.1
	88	140	115	220	136	31	15	23
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	2 4	2 3	2 3
	0.5	0.6	1.0	0.8	0.5	0.1-	0.6-	0.4
	5.0	3.3	3.6	5.0	4.0	2.8	1.5	1.5
	4.5-	3.2-	2.0-	3.7-	4.1-	5.0-	5.0-	2.2-
	1.3	1.2	1.3	1.5	1.5	1.6	1.8	1.0
	86	138	111	218	132	31	9	16
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	2 4	3 3	2 3
	6.1	6.7	7.7	7.5	6.8	5.8	5.0	5.0
	11.5	16.0	12.8	14.8	11.6	9.0	6.6	9.1
	2.0	1.2	1.6	0.6	0.6	0.5	2.7	0.8-
	2.0	2.1	2.3	2.1	2.0	2.0	1.2	2.7
	83	134	111	214	128	28	6	15
EA	3 2	2 3	2 3	3 3	4 3	2 4	3 3	2 3
	26.1	25.5	24.7	23.3	22.5	22.3	20.7	20.5
	30.2	29.0	29.0	31.0	31.0	26.7	23.0	25.7
	21.7	20.0	21.0	17.8	17.8	19.3	19.3	16.6
	1.6	1.3	1.5	1.5	1.7	1.8	1.1	2.5
	83	134	111	214	128	28	6	15
C	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 3
	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.3
	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3
	92	142	118	231	139	33	17	23
P	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 3
	17.3	17.5	17.3	18.6	19.0	18.0	18.6	17.6
	22.5	22.5	23.5	24.0	24.2	21.5	22.0	21.5
	12.0	12.6	12.3	10.0	14.0	14.5	16.0	14.2
	2.1	1.8	2.0	2.1	2.2	1.7	1.6	2.3
	91	142	119	230	137	34	17	23
W	3 2	2 3	2 3	3 3	4 3	2 3	3 3	3 3
	7.8	7.7	7.5	7.2	6.5	7.5	5.5	5.3
	13.8	13.8	14.3	13.8	13.8	12.8	10.2	9.2
	2.5	0.0	0.0	2.0	1.5	1.6	2.5	3.5
	2.3	2.3	2.3	2.0	2.2	2.6	2.0	1.3
	92	138	106	228	139	31	17	23
W(X)	7.5-	7.2-	7.0-	6.7-	6.0-	6.5-	4.0-	3.8-
	2.1-	4.6	0.0	0.6	1.5-	1.6-	1.0	1.5-
	13.8-	13.8-	12.8-	13.8-	13.8-	12.8-	8.8-	8.6-
	2.5	2.5	2.5	2.1	2.2	2.5	2.2	1.7
W(Y)	0.9-	1.5-	1.5-	0.7-	1.5-	3.1-	3.2-	3.0-
	7.0	5.0	5.8	8.1	4.8	0.1-	1.6-	3.0
	6.0-	6.0-	9.0-	6.0-	8.1-	8.0-	5.1-	5.2-
	2.3	2.0	2.2	2.2	1.8	2.0	1.0	2.0

SEPTEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	2 3	3 3	4 3	3 3	3 4	3 3
	26.0	25.5	25.3	24.7	24.0	23.2	22.6	22.0
	33.0	28.7	30.0	31.0	28.0	29.2	24.0	27.0
	23.1	23.1	23.0	21.5	21.0	21.2	22.0	20.0
	1.2	1.0	1.0	1.2	1.1	1.5	0.7	1.7
	68	91	105	205	120	25	9	12
T(W)-T(A)	3 2	3 3	2 3	3 3	4 3	3 3	3 4	3 3
	0.8	1.3	0.9	0.8	0.6	0.7	0.2	0.6
	3.7	5.0	4.3	3.8	3.2	2.6	1.6	2.1
	6.0-	2.1-	3.0-	6.0-	3.0-	6.0-	1.5-	2.7-
	1.5	1.5	1.3	1.3	1.2	1.6	1.0	1.5
	64	90	105	201	119	25	9	12
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	3 4	4 3
	7.2	7.3	7.1	7.2	6.8	6.3	6.2	7.6
	13.3	13.0	15.0	13.0	11.5	11.8	9.0	9.0
	1.8	1.0	2.6-	1.1-	0.5	0.2-	4.5	5.3
	2.5	2.3	3.0	2.2	2.0	3.0	1.5	1.0
	62	84	101	197	116	22	6	10
EA	3 2	2 3	2 3	3 3	4 3	3 3	3 4	4 3
	25.8	25.7	25.0	23.5	22.5	22.0	20.5	18.1
	31.8	31.6	32.3	31.0	27.1	27.5	22.8	20.5
	20.2	21.2	19.8	19.5	17.8	17.7	16.5	16.2
	2.0	1.7	2.1	1.8	1.7	2.5	2.0	1.2
	62	84	101	197	116	22	6	10
C	3 2	3 3	2 3	3 3	4 3	3 3	3 4	3 3
	0.4	0.6	0.5	0.6	0.6	0.6	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1
	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.3
	69	94	108	209	121	24	9	12
P	3 2	3 3	2 3	3 3	4 3	3 3	3 4	3 3
	16.3	16.2	16.5	17.6	18.3	17.2	16.0	17.8
	21.5	20.5	23.0	21.5	22.5	22.0	18.0	22.5
	1.5	9.0	12.3	13.5	14.0	14.0	14.5	13.0
	3.0	2.5	1.8	1.7	1.8	2.1	1.0	2.7
	63	91	107	208	117	24	9	12
W	3 2	3 3	2 3	3 3	4 3	3 3	3 4	3 3
	7.0	7.3	8.0	7.8	8.0	7.0	7.1	5.8
	12.8	12.8	12.6	13.3	12.8	10.7	13.3	12.3
	1.5	0.0	3.5	0.0	2.0	1.5	3.0	0.0
	2.7	2.5	2.1	2.0	2.0	2.5	2.5	3.2
	63	91	107	210	120	25	9	12
W(X)	6.0-	6.2-	7.0-	7.5-	7.5-	6.1-	6.0-	4.5-
	0.0	2.1	1.6	0.0	2.0-	1.0-	2.0-	0.0
	11.0-	12.0-	11.7-	12.8-	11.2-	10.0-	11.5-	11.5-
	3.0	3.0	2.5	2.0	2.0	2.2	2.2	3.2
W(Y)	1.1-	0.6-	1.3-	0.7-	1.6-	2.2-	3.6-	3.0-
	7.6	10.5	6.2	6.6	4.8	4.3	2.1-	0.0
	10.1-	6.6-	11.1-	7.0-	8.3-	6.6-	8.0-	6.6-
	3.1	3.2	3.3	2.0	2.0	2.2	2.0	1.8

OCTOBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	25.1	25.0	24.6	23.8	23.1	23.5	22.3	21.2
	29.0	30.5	28.1	29.2	32.0	26.0	25.5	25.0
	22.0	23.1	21.0	19.6	18.7	21.0	21.0	18.7
	1.3	1.0	1.1	1.2	1.5	1.2	1.1	1.6
	72	106	168	233	139	22	15	19
T(W)-T(A)	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	1.2	1.2	1.0	1.0	1.5	0.6	0.8	1.2
	4.5	3.8	4.6	6.0	5.0	3.0	3.0	4.3
	3.2-	3.8-	3.8-	15.0-	6.0-	2.1-	1.1-	2.0-
	1.6	1.3	1.3	2.0	1.6	1.3	1.0	1.5
	66	104	166	228	138	22	15	19
E(W)-E(A)	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	7.6	8.2	8.1	7.8	8.0	7.5	8.0	6.8
	15.5	14.5	15.0	15.5	15.6	10.2	9.5	9.1
	1.5	3.1	2.5	0.9	3.1	2.0	6.2	4.1
	3.0	2.5	2.3	2.5	2.3	2.0	1.0	1.1
	65	101	165	223	138	22	13	14
EA	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	24.6	24.1	23.0	22.1	21.2	20.7	18.5	19.1
	29.5	29.5	28.2	29.3	27.1	24.6	20.0	22.2
	16.0	18.7	16.0	15.0	15.0	16.5	15.6	16.5
	2.6	2.3	2.1	2.2	2.3	1.8	1.1	1.5
	65	101	165	223	138	22	13	14
C	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	0.6	0.6	0.5	0.6	0.6	0.4	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
	73	105	169	232	140	24	18	20
P	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	17.6	17.8	17.6	18.2	18.5	18.0	18.5	19.3
	22.0	23.5	22.5	24.0	26.5	21.1	21.1	21.5
	14.0	13.7	11.2	12.0	13.5	15.0	16.0	17.0
	1.7	1.5	1.8	2.0	2.2	1.5	1.3	1.2
	68	98	166	232	139	24	18	22
W	3 2	2 3	2 3	3 3	4 4	3 4	3 3	3 3
	9.0	8.6	7.8	7.7	7.5	8.6	6.3	6.0
	20.5	15.3	18.0	18.0	13.8	13.3	13.3	8.1
	4.0	0.0	0.0	0.0	2.0	3.0	0.0	1.5
	3.1	2.8	3.0	2.8	2.5	3.0	3.5	1.6
	68	105	168	235	138	23	18	22
W(X)	8.0-	7.7-	6.6-	6.3-	4.8-	6.0-	5.2-	4.0-
	3.2-	4.0	3.8	4.3	7.5	2.6	0.0	5.0
	15.6-	12.8-	15.5-	17.0-	12.8-	12.8-	13.3-	7.5-
	2.6	3.1	3.2	3.5	3.7	4.5	3.8	3.1
W(Y)	1.8-	2.3-	2.5-	2.3-	2.1-	1.3-	0.8-	2.0-
	11.0	2.2	7.1	10.0	9.5	7.7	4.0	5.8
	13.3-	13.3-	10.7-	13.3-	12.6-	12.5-	5.7-	7.7-
	4.0	2.7	3.0	3.2	4.3	5.1	2.8	3.1

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	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	24.1	24.0	24.0	23.2	22.5	22.6	22.5	21.0	
	27.1	26.5	27.0	27.6	29.0	26.2	26.0	24.0	
	21.5	20.5	20.5	20.5	19.0	20.5	21.0	17.6	
	1.1	1.0	1.1	1.1	1.5	1.5	1.2	1.5	
	85	138	135	215	129	47	15	23	
T(W)-T(A)	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	0.9	1.1	0.7	0.9	1.0	1.0	0.8	1.0	
	4.0	3.8	4.5	5.0	6.0	4.5	3.0	4.0	
	3.0-	2.7-	2.2-	3.3-	4.0-	4.0-	2.6-	1.1-	
	1.3	1.1	1.2	1.5	1.6	1.6	1.3	1.3	
	83	135	131	210	125	47	15	23	
E(W)-E(A)	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	6.8	6.5	6.0	5.5	5.5	6.0	6.0	6.1	
	13.6	11.8	14.5	12.5	13.3	10.5	8.3	8.8	
	0.2	1.2-	0.1-	2.5-	3.5-	0.4-	2.6	2.5	
	2.6	2.5	2.6	3.0	3.5	2.7	1.8	1.6	
	80	129	130	207	122	44	14	23	
EA	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	23.0	23.6	23.5	22.7	22.1	21.5	20.8	19.0	
	27.6	29.0	28.6	29.7	28.7	28.5	23.6	25.0	
	14.7	17.1	17.5	15.3	14.1	15.1	18.0	15.3	
	2.8	2.2	2.2	2.7	3.0	2.7	1.5	2.5	
	80	129	130	207	122	44	14	23	
C	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.9	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	
	85	139	135	214	128	47	15	23	
P	3 2	3 3	2 3	3 3	4 3	3 3	2 3	3 2	
	15.3	16.0	15.6	17.0	18.1	18.0	19.2	20.8	
	22.7	25.0	24.1	24.5	25.2	25.0	24.0	26.0	
	3.7	3.0	3.0	7.2	8.5	12.5	13.0	13.5	
	4.1	3.8	3.5	4.0	4.1	3.0	2.7	3.5	
	80	138	136	213	127	44	12	19	
W	3 2	3 3	2 3	3 3	4 3	2 3	2 3	3 2	
	7.8	9.1	8.6	8.7	8.3	7.2	6.1	6.7	
	14.3	18.0	16.5	18.5	15.3	11.2	11.7	10.7	
	0.0	1.0	1.7	0.0	0.0	2.5	3.8	3.0	
	3.3	3.5	3.5	3.5	2.8	2.3	2.5	1.8	
	83	136	132	209	125	47	15	20	
W(X)	4.3-	5.5-	4.8-	5.7-	5.7-	5.8-	5.5-	5.7-	
	11.5	12.0	9.7	8.1	7.1	3.0	0.7	2.0-	
	14.3-	16.8-	15.3-	17.6-	14.5-	10.2-	10.1-	8.1-	
	6.5	6.7	6.0	5.3	4.1	3.0	2.6	1.8	
W(Y)	0.1-	0.4-	0.1-	0.4	0.2-	1.2-	0.6-	1.8-	
	8.0	12.3	11.5	16.0	12.0	9.0	4.5	6.1	
	9.0-	9.0-	11.6-	12.0-	11.1-	7.5-	6.0-	7.0-	
	3.1	4.3	5.2	5.0	5.1	3.6	2.6	3.0	

DECEMBER 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 3	2 3	3 3	3 3	3 3	3 3	3 3	3 3	
	23.3	24.0	23.5	23.1	22.5	22.5	21.6	20.5	
	27.0	28.0	27.0	28.1	28.7	28.1	24.5	22.5	
	20.0	21.0	21.0	18.7	20.0	20.6	19.7	17.0	
	1.5	1.2	1.1	1.2	1.1	1.3	1.2	1.2	
	85	120	91	202	147	49	21	25	
T(W)-T(A)	3 3	2 3	3 3	3 3	3 3	3 3	3 3	3 3	
	1.0	0.8	0.8	0.8	0.6	0.2	0.1	0.6	
	4.5	4.3	5.0	4.3	4.5	2.2	2.0	4.2	
	2.7-	3.7-	2.8-	3.8-	5.0-	6.0-	3.0-	1.5-	
	1.5	1.5	1.1	1.2	1.2	1.5	1.3	1.3	
	83	119	89	201	146	49	21	25	
E(W)-E(A)	3 3	2 3	3 3	3 3	4 3	3 3	3 3	3 3	
	6.5	5.8	5.0	5.0	5.0	4.2	4.5	5.3	
	18.0	15.1	11.5	12.0	11.6	12.6	12.5	11.6	
	1.5-	2.2-	0.1	0.9-	2.5-	1.7-	0.9-	1.6	
	3.6	3.0	2.3	2.2	2.5	2.8	3.5	2.7	
	80	114	83	199	141	44	21	25	
EA	3 3	2 3	3 3	3 3	4 3	3 3	3 3	3 3	
	22.2	23.7	23.6	23.0	21.6	21.6	20.0	18.1	
	27.3	28.0	27.6	28.2	29.0	27.5	25.7	22.6	
	14.6	17.1	15.0	17.5	16.0	14.0	13.3	13.1	
	3.2	2.0	2.2	2.0	2.6	2.8	3.3	2.5	
	80	114	83	199	141	44	21	25	
C	3 3	2 3	3 3	3 3	3 3	3 3	2 3	3 3	
	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	
	80	119	90	196	146	49	20	25	
P	3 3	2 3	3 3	3 3	3 3	3 3	3 3	3 3	
	11.2	12.3	14.6	15.8	17.2	19.1	19.2	20.0	
	19.1	21.2	22.0	24.5	25.0	25.0	24.0	24.5	
	3.0	1.2	3.5	7.5	8.5	12.7	14.0	15.7	
	4.1	4.5	4.1	4.1	3.8	3.0	2.2	2.3	
	83	117	89	204	147	49	21	25	
W	3 3	2 3	3 3	3 3	3 3	3 3	3 3	3 3	
	8.6	8.8	8.0	7.8	7.2	6.6	7.7	7.0	
	18.0	21.5	17.0	18.0	17.5	13.8	14.3	10.7	
	1.1	1.5	0.0	0.0	0.0	3.0	2.5	3.5	
	3.7	4.0	3.3	3.0	2.7	2.0	2.6	1.8	
	85	118	89	202	148	48	21	25	
W(X)	1.5	0.5-	3.7-	4.1-	4.5-	5.1-	6.5-	6.0-	
	18.0	16.8	9.5	8.7	11.0	4.6	2.0-	2.2-	
	15.8-	13.5-	14.8-	13.0-	13.6-	12.0-	11.0-	10.7-	
	7.8	7.2	5.5	4.7	4.2	2.8	2.6	2.2	
W(Y)	2.0	3.0	1.5	3.1	2.3	1.1	1.0	2.8-	
	15.3	20.2	16.0	17.0	15.3	9.2	6.6	0.8	
	9.7-	12.0-	9.1-	8.0-	6.6-	7.0-	9.3-	6.6-	
	4.5	5.5	5.2	4.3	4.0	3.5	3.8	1.8	

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	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	2 3	2 3	3 3	4 4	3 3	2 3	3 3
	21.8	22.1	22.5	22.2	22.0	21.6	21.5	20.0
	28.0	27.0	29.2	28.1	25.5	24.0	28.0	26.0
	17.6	18.1	17.0	18.1	18.5	16.5	19.0	16.5
	1.5	1.3	1.7	1.5	1.1	1.3	1.7	1.8
	116	139	122	215	145	36	29	30
T(W)-T(A)	3 3	2 3	2 3	3 3	4 4	3 3	2 3	2 2
	2.0	1.8	1.7	1.5	1.0	0.9	1.0	1.7
	6.7	6.0	6.2	5.0	4.6	6.5	4.7	5.5
	3.2-	1.5-	2.6-	4.3-	1.5-	2.1-	3.2-	5.0-
	1.6	1.3	1.7	1.3	1.3	1.7	1.8	2.2
	113	138	120	214	145	32	24	25
E(W)-E(A)	2 3	2 3	2 3	3 3	4 4	3 3	2 3	2 2
	8.6	8.0	7.5	6.0	4.7	5.3	6.0	7.2
	15.3	18.1	14.5	14.8	11.5	13.1	13.5	15.0
	3.0	0.1	0.9	7.3-	4.0-	0.1	4.2-	0.6
	3.1	3.5	3.0	2.8	2.6	3.1	4.1	4.2
	109	134	113	205	139	27	24	25
EA	2 3	2 3	2 3	3 3	4 4	3 3	2 3	2 2
	19.2	20.2	21.2	21.5	21.8	20.8	19.3	17.0
	28.0	27.6	26.1	35.0	28.6	24.8	27.6	22.6
	12.3	12.7	13.1	13.5	14.5	13.5	13.1	12.6
	3.0	3.3	3.2	3.0	2.5	3.0	3.5	2.6
	109	134	113	205	139	27	24	25
C	3 3	2 3	2 3	3 3	4 4	3 3	2 3	3 3
	0.5	0.6	0.6	0.6	0.6	0.6	0.4	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3
	119	140	123	212	144	37	29	30
P	3 3	2 3	2 3	3 3	4 4	3 3	2 3	3 2
	13.1	13.6	13.8	13.5	15.0	16.0	17.0	18.7
	23.0	21.1	24.0	27.0	24.0	25.0	24.5	26.0
	4.0	2.5	5.0	0.0	1.6-	5.5	11.7	12.7
	5.0	4.5	4.0	4.3	4.5	5.2	3.5	3.6
	118	140	120	214	142	37	27	26
W	3 3	2 3	2 3	3 3	4 4	3 3	2 3	3 3
	7.1	7.7	7.8	8.0	7.5	7.0	7.3	7.5
	16.5	17.5	23.1	23.1	18.0	13.8	15.3	12.8
	0.5	0.0	0.0	0.0	0.0	1.5	0.0	2.5
	3.6	3.7	4.3	3.8	3.2	3.1	4.0	3.0
	119	141	122	215	145	36	26	29
W(X)	1.0	0.4-	2.1-	1.1-	2.5-	2.5-	5.6-	6.3-
	16.5	12.8	11.5	19.3	13.1	12.0	1.5	1.0-
	11.0-	12.0-	14.8-	14.1-	17.6-	10.6-	13.6-	12.6-
	6.1	6.2	6.1	6.2	5.2	5.6	4.5	3.6
W(Y)	2.0-	2.5-	0.8-	1.5	3.0	2.1	0.0	1.8-
	8.3	15.3	10.2	11.1	16.0	12.0	6.6	3.2
	13.2-	16.3-	21.6-	19.2-	12.6-	8.3-	10.0-	6.6-
	4.5	5.5	6.1	6.0	4.7	4.0	4.3	2.6

FEBRUARY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	4 3	3 3	3 3
	21.2	21.1	20.8	20.6	20.5	20.5	20.1	19.2
	28.1	31.0	25.5	26.5	24.0	23.1	23.1	23.1
	18.1	18.1	16.5	17.1	16.5	17.0	17.6	17.0
	1.5	1.5	1.5	1.5	1.3	1.0	1.1	1.2
	61	107	105	229	164	52	26	28
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	4 3	3 3	3 3
	1.5	1.7	2.1	2.0	2.0	1.6	1.0	1.0
	4.0	5.5	5.5	7.1	7.1	4.5	3.2	3.2
	5.5-	9.5-	2.2-	3.8-	3.0-	0.5-	2.7-	5.5-
	1.6	1.5	1.3	1.5	1.7	1.3	1.6	2.0
	61	107	102	228	164	51	26	28
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	8.7	8.8	9.3	7.5	6.5	6.1	5.5	5.5
	13.7	15.5	16.5	20.6	16.0	14.5	11.0	10.0
	0.4	4.3	3.3	1.2	0.6	1.3	0.4	0.2
	2.6	2.0	2.1	3.5	3.5	3.1	2.8	2.6
	56	102	96	215	146	49	26	28
EA	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	17.2	17.5	17.1	18.5	19.2	19.2	18.2	16.8
	26.0	22.6	24.1	23.6	24.8	24.5	22.2	19.3
	13.2	11.0	12.0	11.1	11.7	13.0	14.1	13.0
	2.8	2.0	2.1	3.1	2.8	2.6	2.0	1.8
	56	102	96	215	146	49	26	28
C	3 2	2 3	2 3	3 3	4 3	4 3	3 3	3 3
	0.5	0.5	0.5	0.7	0.7	0.8	0.8	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	61	108	105	227	162	51	26	29
P	3 2	2 3	2 3	3 3	4 3	4 3	3 3	3 3
	18.1	17.5	16.0	14.0	14.0	15.0	16.5	18.1
	22.2	24.2	24.0	23.0	21.2	25.0	21.5	23.2
	14.5	12.0	7.5	1.2	3.5-	0.6	10.5	10.6
	2.0	2.5	3.6	4.2	5.1	5.5	3.0	3.3
	53	102	101	228	158	52	26	29
W	3 2	2 3	2 3	3 3	4 3	4 3	3 3	3 3
	6.8	7.7	7.7	8.8	8.5	9.3	8.7	7.0
	17.0	16.0	13.8	24.1	18.0	23.1	14.3	10.7
	0.0	0.0	2.0	0.0	0.0	2.0	1.5	2.5
	4.0	3.5	2.8	4.5	3.3	4.1	3.5	2.1
	60	108	104	226	162	52	26	29
W(X)	3.6-	4.1-	2.6-	1.0-	1.5-	3.3-	8.0-	5.6-
	6.6	3.1	9.8	21.7	17.6	19.2	0.8	0.1
	11.0-	13.6-	12.8-	15.3-	14.5-	14.3-	14.3-	9.5-
	3.5	3.2	4.5	6.0	6.3	7.6	4.0	2.5
W(Y)	4.3-	5.0-	5.1-	4.5-	0.6-	3.1	0.1	1.6-
	5.6	6.7	11.1	10.2	12.1	17.8	5.5	3.8
	16.0-	14.3-	13.5-	21.7-	15.3-	7.7-	7.3-	9.2-
	4.1	4.2	3.7	6.5	6.2	4.8	3.0	3.5

LATITUDE 20° - 25° N.

MARCH 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	21.6	21.7	21.8	21.2	21.0	20.3	20.1	19.0
	27.6	26.5	25.1	25.5	25.0	22.3	23.0	21.0
	18.2	17.6	18.1	18.0	13.5	17.0	17.2	17.0
	1.6	1.5	1.3	1.2	1.3	1.5	1.5	1.1
	121	154	124	240	120	34	16	17
T(W)-T(A)	3 3	2 3	2 3	3 3	4 4	3 3	3 3	3 3
	1.0	1.5	1.3	1.2	1.0	1.5	1.5	1.7
	5.5	6.0	5.0	7.5	9.0	6.0	4.7	4.5
	4.5-	2.2-	2.1-	3.2-	2.0-	1.5-	0.7-	1.0-
	1.5	1.5	1.2	1.5	1.5	1.5	1.6	1.5
	116	150	116	231	116	33	16	17
E(W)-E(A)	3 3	2 3	2 3	3 3	4 4	3 4	3 4	4 3
	7.2	7.8	7.7	6.7	5.6	4.0	4.5	4.7
	15.2	15.1	14.2	15.2	12.0	9.8	10.0	10.3
	0.6-	3.1-	1.3-	0.9	2.7-	4.0-	1.7	0.5
	3.2	3.2	3.1	2.7	2.7	2.8	2.1	2.6
	113	144	110	221	114	26	9	10
EA	3 3	2 3	2 3	3 3	4 4	3 4	3 4	4 3
	18.7	18.8	19.0	18.8	19.0	20.5	19.0	17.1
	25.5	31.6	25.8	25.7	26.1	26.5	22.2	20.5
	11.6	12.0	13.5	11.6	12.3	15.0	13.2	13.0
	3.0	3.2	2.6	2.7	2.5	2.3	2.5	2.0
	113	144	110	221	114	26	9	10
C	3 3	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	0.5	0.5	0.5	0.6	0.7	0.8	0.7	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
	120	154	122	235	119	33	16	16
P	3 3	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	17.7	16.8	16.0	16.5	16.8	16.2	17.0	17.6
	23.0	23.0	23.0	24.5	26.0	22.0	22.5	22.5
	11.0	10.5	9.0	8.0	8.5	7.0	13.5	12.5
	2.8	2.3	2.5	3.1	3.7	4.0	2.6	3.1
	117	154	124	239	120	33	15	17
W	3 3	2 3	2 3	3 3	4 3	3 3	3 3	3 3
	7.0	6.0	6.0	6.5	7.7	7.2	7.6	6.1
	12.8	12.3	12.8	15.3	14.8	15.3	12.8	9.2
	0.0	1.5	0.4	0.0	2.0	0.0	2.0	3.0
	2.7	2.5	2.6	3.0	2.7	3.5	2.5	1.5
	121	153	122	240	119	34	15	16
W(X)	2.1-	1.5-	1.5-	2.0-	2.7-	4.2-	5.0-	3.5-
	10.1	9.6	10.5	12.8	11.0	7.7	0.1	1.2
	11.0-	10.5-	11.7-	13.3-	13.5-	15.1-	11.1-	7.0-
	4.8	4.0	4.6	5.2	6.0	5.0	3.5	2.5
W(Y)	1.6-	1.7-	1.5-	0.6-	0.2	2.8	0.3	3.1-
	9.6	11.6	8.3	12.2	10.8	11.0	9.2	7.5
	9.8-	10.7-	12.8-	10.6-	12.0-	2.7-	9.2-	7.6-
	5.0	4.5	4.1	4.5	4.8	3.7	5.1	3.2

APRIL 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	21.5	22.1	22.8	22.2	21.5	21.6	20.6	19.5
	26.5	27.6	26.0	27.6	25.5	24.2	24.5	25.0
	17.6	18.1	19.2	18.7	18.7	19.0	17.6	16.0
	1.5	1.5	1.3	1.5	1.2	1.3	1.6	1.8
	109	143	128	215	135	25	18	22
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	1.6	1.3	0.7	0.9	0.9	0.2	0.7	0.3
	5.0	6.5	4.3	5.5	4.2	3.0	4.3	2.7
	2.2-	3.0-	2.7-	4.5-	2.2-	1.5-	3.5-	5.0-
	1.5	1.5	1.2	1.3	1.1	1.2	2.0	1.7
	102	139	126	212	133	23	17	22
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	6.5	6.3	5.2	6.0	5.6	4.6	4.7	5.8
	16.6	14.0	14.0	13.3	11.0	10.2	14.8	10.7
	0.0	0.8	0.4	0.3-	0.2-	0.8-	6.1-	2.2
	3.8	3.3	2.7	2.3	2.1	3.0	4.5	2.3
	100	135	123	208	133	23	17	22
EA	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	20.1	21.0	22.0	20.6	19.8	20.3	19.0	15.7
	26.0	28.0	27.7	27.1	26.0	25.3	29.5	21.0
	9.2	12.1	14.3	14.2	13.8	14.7	13.5	11.8
	3.5	3.1	2.5	2.3	2.3	3.0	4.0	2.5
	100	135	123	208	133	23	17	22
C	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.5
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	109	143	129	216	137	24	18	22
P	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	16.5	16.1	17.0	18.7	19.1	17.7	19.0	20.0
	23.2	32.0	32.0	28.0	27.0	24.2	23.2	22.0
	7.5	9.0	11.2	10.6	9.0	10.0	14.0	16.5
	3.5	4.0	3.3	3.6	4.0	4.0	2.7	1.3
	103	139	125	207	132	23	17	22
W	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 3
	7.7	6.7	7.3	7.7	7.1	6.3	6.7	6.0
	15.3	14.3	17.0	18.0	13.8	10.2	12.3	13.8
	0.0	0.0	0.0	0.0	1.0	1.5	2.0	0.5
	3.1	3.5	3.6	3.6	2.5	2.0	2.8	4.0
	110	141	128	216	136	25	18	21
W(X)	4.0-	3.7-	4.5-	5.5-	4.5-	2.8-	3.5-	2.2-
	8.6	8.7	10.5	7.5	9.6	5.0	3.5	0.6
	14.5-	14.3-	13.6-	15.5-	13.0-	9.0-	8.0-	7.6-
	5.5	5.3	5.0	5.0	5.0	4.5	3.1	2.1
W(Y)	2.0-	0.6-	0.2-	0.1	0.5	1.1	1.0-	2.8-
	10.6	13.1	13.2	13.2	9.5	10.2	7.6	5.5
	12.6-	8.8-	16.0-	11.6-	7.2-	5.0-	11.5-	13.0-
	4.5	3.8	4.5	4.2	3.6	4.0	5.5	5.7

LATITUDE 20°- 25° N.

MAY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	3 3	3 3	2 3	3 2
	23.2	24.0	24.3	23.5	22.5	22.2	22.1	19.2
	28.0	28.1	28.1	29.2	30.0	26.5	25.0	23.1
	20.0	19.6	21.5	20.5	20.5	19.2	19.6	16.0
	1.5	1.5	1.2	1.3	1.5	1.7	2.0	2.0
	95	132	1C9	225	145	39	9	11
T(W)-T(A)	3 2	2 3	2 3	3 3	3 3	3 3	2 3	3 2
	0.9	0.6	0.6	0.7	0.7	0.6	0.4	1.5
	4.3	5.0	5.0	4.5	4.5	3.7	4.2	5.0
	3.5-	2.2-	2.2-	4.5-	5.0-	4.5-	2.1-	2.1-
	1.5	1.2	1.1	1.5	1.5	1.8	1.8	1.8
	91	130	107	217	144	38	9	11
E(W)-E(A)	3 2	2 3	2 3	3 3	3 3	3 3	2 3	3 2
	5.0	4.5	5.2	5.3	5.3	5.7	5.6	6.7
	13.0	15.5	12.0	11.3	12.2	12.7	10.5	10.8
	0.1	2.7-	0.1-	1.2-	0.3	0.0	0.5	5.2
	2.7	2.7	2.3	2.0	2.0	2.8	3.0	1.5
	91	130	98	212	142	36	9	11
EA	3 2	2 3	2 3	3 3	3 3	3 3	2 3	3 2
	23.3	24.7	24.3	22.8	21.5	20.0	20.0	16.3
	29.0	29.8	29.1	28.7	28.3	25.2	24.5	18.0
	15.5	18.0	20.3	17.1	17.0	13.8	16.0	12.3
	2.7	2.0	1.6	1.7	1.8	2.6	2.5	1.5
	91	130	98	212	142	36	9	11
C	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 2
	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.1	0.0	0.3	0.1	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	94	131	112	226	146	39	9	11
P	3 2	2 3	2 3	3 3	4 3	3 3	2 3	3 2
	15.0	15.3	15.7	18.5	20.0	20.5	20.5	21.0
	22.6	22.2	23.5	26.6	24.0	24.5	23.2	23.2
	5.6	10.0	11.0	12.3	10.6	15.0	17.5	17.1
	3.3	3.0	2.5	2.2	2.0	2.2	1.7	1.8
	93	129	103	219	142	37	8	11
W	3 2	2 3	2 3	3 3	3 3	3 3	2 3	3 2
	6.6	6.0	6.5	7.6	8.0	7.8	7.3	8.0
	15.3	13.3	12.8	15.3	13.3	10.2	12.8	12.8
	0.0	0.0	0.0	0.0	0.0	4.5	4.5	3.0
	3.0	2.5	2.5	2.3	2.1	1.5	2.2	3.2
	96	131	113	227	147	39	9	11
W(X)	4.3-	4.5-	5.5-	6.8-	7.3-	7.5-	6.8-	6.7-
	4.8	8.5	2.0	1.5	0.0	4.5-	3.5-	2.2-
	14.5-	10.5-	12.8-	14.5-	12.8-	10.2-	12.6-	12.0-
	3.6	3.5	3.1	2.7	2.3	1.5	2.5	3.2
W(Y)	3.3-	0.5-	0.5	1.5	0.3	1.5-	2.1-	4.1-
	5.0	11.5	9.7	9.5	9.3	2.8	0.1-	2.0-
	11.1-	12.5-	6.7-	9.0-	5.0-	6.3-	5.2-	7.3-
	3.0	3.2	3.0	2.8	2.8	1.8	1.3	1.5

JUNE 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	25.5	25.3	24.5	24.0	23.0	22.1	21.8	20.5
	30.0	31.0	29.0	31.0	28.1	25.0	24.0	26.0
	23.0	22.7	21.0	20.0	20.0	20.0	19.6	17.6
	1.5	1.5	1.2	1.5	1.1	1.0	1.5	1.7
	65	96	126	237	136	32	10	22
T(W)-T(A)	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	0.1	0.0	0.8	0.6	0.9	0.6	0.1	1.0
	3.0	3.1	4.0	4.0	4.0	3.0	1.5	4.0
	4.5-	5.0-	6.0-	6.0-	4.5-	3.0-	1.6-	4.3-
	1.5	1.5	1.5	1.6	1.5	1.5	1.0	2.1
	63	91	117	228	130	31	10	22
E(W)-E(A)	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	6.0	6.2	7.3	6.8	7.0	6.7	6.0	6.0
	11.6	13.7	15.3	12.3	13.1	14.1	8.7	10.3
	1.3	1.1	0.6	1.0	0.6-	1.0	2.6	0.7
	2.2	2.3	2.1	2.0	2.3	2.6	2.1	2.8
	63	86	113	226	130	31	10	22
EA	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	25.0	24.5	23.0	22.2	2C.8	19.1	18.6	18.0
	29.1	29.7	28.0	26.6	29.0	22.5	22.7	21.3
	21.0	19.0	14.3	16.5	16.0	13.3	16.0	14.5
	1.5	1.7	1.7	1.6	1.7	1.8	2.0	2.2
	63	86	113	226	130	31	10	22
C	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	0.5	0.5	0.5	0.6	0.6	0.7	0.7	1.0
	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.6
	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1
	65	98	129	235	136	32	10	21
P	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	19.3	18.8	18.5	20.3	21.3	20.6	21.0	19.8
	24.0	22.7	22.0	24.5	26.0	24.0	23.0	21.1
	15.1	13.5	13.0	15.0	16.5	16.7	18.0	17.5
	2.0	1.7	1.6	1.6	1.8	2.0	1.7	1.0
	63	95	127	235	133	31	10	22
W	3 2	2 3	2 3	3 3	4 3	3 3	3 3	3 2
	6.5	7.0	7.5	7.8	7.6	7.5	7.8	8.7
	10.2	11.7	15.3	15.3	16.5	10.2	10.7	12.3
	2.5	2.0	1.5	1.5	0.0	2.5	5.0	4.0
	1.8	2.2	2.5	2.5	3.0	2.0	2.0	1.8
	65	98	129	238	133	32	10	22
W(X)	5.7-	6.3-	7.1-	7.5-	7.1-	6.0-	5.5-	6.0-
	0.0	1.7-	0.5-	2.2	0.0	2.8	2.6-	2.8
	9.5-	11.6-	15.3-	15.1-	15.3-	10.0-	7.7-	10.5-
	1.8	2.1	2.6	2.6	3.0	3.0	1.6	2.8
W(Y)	0.8-	1.7-	1.0-	0.7-	0.8-	2.2-	5.0-	5.5-
	7.0	3.7	4.5	7.0	5.1	3.3	0.1-	0.0
	7.5-	6.6-	9.0-	8.6-	7.5-	9.0-	10.1-	9.0-
	2.6	2.1	2.2	2.3	2.5	2.8	2.7	2.3

JULY 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3 26.5 29.0 25.0 0.7 48	3 2 26.5 29.5 24.1 1.0 24	3 3 25.5 27.6 22.0 1.0 59	3 3 25.0 28.0 22.0 1.0 29	3 4 24.6 27.0 23.0 0.7 37	4 3 23.8 26.5 21.5 1.2 35	4 3 23.8 27.0 21.0 1.5 32	4 2 22.8 25.5 20.5 1.1 38
T(W)-T(A)	2 3 0.1- 2.6 3.8- 1.5 22	3 3 0.9- 2.0 3.3- 1.5 21	3 3 0.7 4.5 3.8- 1.2 51	3 3 0.3 3.3 2.5- 1.2 29	3 4 0.2 2.7 4.0- 1.0 37	4 3 0.7 2.2 1.6- 1.2 35	4 3 0.3 2.7 3.1- 1.5 32	4 2 1.0 4.3 1.1- 1.0 37
E(W)-E(A)	2 3 5.3 10.2 0.4 2.6 22	3 3 4.3 10.7 0.5 2.8 21	3 3 6.0 12.3 0.7- 2.2 51	3 3 5.5 10.2 1.5- 2.5 29	3 4 4.8 11.0 1.3- 2.6 37	4 3 5.6 13.7 1.7- 3.1 31	4 3 5.0 11.3 7.5- 3.6 31	4 2 5.8 9.2 1.6- 2.5 37
EA	2 3 27.3 29.5 24.5 1.1 22	3 3 26.8 31.0 24.0 1.5 21	3 3 25.7 28.6 21.3 1.5 51	3 3 25.0 32.1 20.2 3.0 29	3 4 24.6 28.6 20.3 2.2 37	4 3 23.5 29.5 17.8 3.0 31	4 3 23.1 35.5 15.2 3.8 31	4 2 22.2 28.0 16.5 2.8 37
C	2 3 0.6 1.0 0.1 0.3 42	3 2 0.6 1.0 0.3 0.2 24	3 3 0.5 1.0 0.0 0.2 59	3 3 0.5 1.0 0.1 0.3 29	3 4 0.5 1.0 0.1 0.2 37	4 3 0.6 1.0 0.0 0.3 35	4 3 0.8 1.0 0.1 0.2 31	4 2 0.9 1.0 0.3 0.2 35
P	2 3 14.0 18.0 12.0 1.2 44	3 2 15.0 18.1 12.5 1.8 22	3 3 14.5 18.0 11.7 1.5 54	3 3 15.5 20.1 11.3 2.0 29	3 4 14.8 20.7 12.0 1.8 37	4 3 15.3 19.0 11.5 1.7 35	4 3 14.8 18.1 11.5 1.7 31	4 2 14.1 18.0 10.2 1.7 38
W	2 3 7.1 11.7 4.0 1.5 48	3 2 7.5 9.3 5.0 1.0 24	3 3 7.2 12.3 1.5 2.1 59	3 3 7.8 13.3 3.5 2.1 29	3 4 8.2 11.5 5.0 1.3 37	4 3 7.2 10.7 2.5 2.0 35	4 3 7.5 13.3 0.0 2.5 32	4 2 7.0 12.8 3.5 2.0 38
W(X)	6.7- 3.2- 10.6- 1.3	7.3- 5.0- 9.0- 0.9	6.3- 3.6 11.7- 3.0	7.2- 3.2- 13.1- 2.5	7.8- 3.8- 11.5- 1.5	6.2- 0.0 10.2- 2.0	6.1- 0.0 13.1- 2.6	5.0- 0.0 10.1- 2.5
W(Y)	0.2 9.0 3.1- 2.5	0.2 5.5 3.5- 2.0	1.3- 6.2 6.3- 2.5	2.1- 4.0 6.0- 2.0	1.6- 1.6 6.3- 1.8	2.5- 2.6 7.0- 2.6	3.1- 1.3 7.2- 2.5	4.0- 3.0 9.8- 2.7

AUGUST 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 4 27.0 29.0 24.3 0.7 40	3 3 26.6 30.0 25.0 1.0 30	4 3 26.1 29.0 24.0 0.8 118	3 3 25.1 28.0 23.0 1.0 29	3 3 24.8 28.0 21.0 1.5 16	4 3 24.3 27.5 22.0 1.3 17	4 3 23.5 26.3 20.5 1.5 31	4 3 23.1 27.6 21.0 1.6 42
T(W)-T(A)	3 3 0.1- 1.5 2.0- 1.0 13	4 3 0.5 3.0 4.0- 1.2 27	4 3 0.8 3.3 2.0- 1.0 114	4 3 0.7 3.5 2.0- 1.1 28	3 3 0.4 3.2 1.6- 1.1 16	4 3 0.0 2.1 2.0- 1.1 17	4 3 0.5 3.7 3.0- 1.5 31	4 3 0.8 5.0 4.0- 2.0 42
E(W)-E(A)	3 3 4.5 10.0 1.5 2.5 12	4 3 5.6 11.1 2.7 2.0 27	4 3 7.5 14.7 0.6 3.0 114	4 3 6.6 11.0 3.0 1.7 28	3 3 5.5 9.7 0.6 2.8 16	4 3 4.5 9.2 0.2- 2.8 17	4 3 4.8 11.5 5.0- 3.5 30	4 3 4.8 14.0 2.5- 4.1 39
EA	3 3 29.3 33.3 22.7 2.7 12	4 3 28.0 31.8 24.3 2.0 27	4 3 25.8 31.0 20.1 2.0 114	4 3 24.7 27.0 21.3 1.6 28	3 3 24.7 29.5 20.0 2.6 16	4 3 24.2 29.7 20.3 2.7 17	4 3 23.0 32.0 17.0 3.3 30	4 3 23.3 31.0 18.3 3.3 39
C	2 3 0.6 1.0 0.0 0.3 28	3 3 0.5 1.0 0.0 0.3 30	4 3 0.5 1.0 0.0 0.2 118	3 3 0.5 0.9 0.1 0.2 28	3 3 0.6 1.0 0.1 0.3 17	4 3 0.7 1.0 0.3 0.2 17	4 3 0.8 1.0 0.4 0.2 31	4 3 0.8 1.0 0.3 0.2 39
P	2 4 13.0 16.7 10.5 1.3 40	3 3 13.8 17.1 11.1 1.6 26	4 3 13.8 17.5 10.5 1.5 115	4 3 14.6 17.0 10.0 1.5 27	3 3 15.0 17.5 12.6 1.5 16	4 3 15.8 18.0 13.0 1.5 17	4 3 16.3 19.0 12.0 1.3 31	4 3 15.8 19.1 9.6 1.7 42
W	2 4 6.1 10.2 0.0 2.0 42	3 3 6.3 10.2 2.0 1.8 30	4 3 7.3 13.3 1.0 2.3 118	3 3 6.6 9.2 3.5 1.7 29	3 3 8.0 10.2 4.0 1.6 16	4 3 8.5 10.2 3.5 1.5 17	4 3 7.5 10.7 2.0 2.2 31	4 3 7.2 10.7 0.0 2.5 41
W(X)	5.8- 0.0 9.6- 2.0	6.2- 2.0- 9.7- 1.8	6.8- 2.0 12.3- 2.3	5.8- 0.1 9.2- 2.0	7.0- 3.8- 9.2- 1.5	7.5- 2.6- 10.0- 1.7	6.3- 1.0- 10.0- 2.3	5.5- 0.0 9.5- 2.2
W(Y)	0.1 3.3 5.1- 1.7	0.2- 3.3 3.1- 1.2	1.2- 5.0 8.6- 2.3	1.6- 2.5 7.6- 2.2	2.6- 0.0 7.0- 2.7	2.5- 1.5 6.6- 2.5	3.2- 1.3 6.6- 1.7	4.0- 1.6 8.0- 2.5

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	26.7	26.6	26.3	25.6	25.1	24.7	24.1	24.0
	28.6	30.0	32.0	28.0	29.2	27.0	27.0	27.5
	25.0	25.0	23.5	23.7	21.0	22.0	21.8	22.0
	0.6	0.9	1.0	1.0	1.5	1.3	1.1	1.3
	59	60	71	28	26	22	29	32
T(W)-T(A)	2 2	3 3	4 3	2 3	3 3	4 3	4 3	4 2
	1.0	0.4	0.9	2.0	1.3	0.9	0.5	0.8
	3.5	3.7	3.7	4.5	3.2	3.3	3.0	3.0
	1.1-	3.0-	6.0-	0.5-	1.0-	3.3-	2.0-	2.0-
	1.1	1.3	1.5	1.3	1.5	1.5	1.1	1.5
	33	59	71	23	20	15	24	29
E(W)-E(A)	2 2	3 3	3 3	2 3	3 3	4 3	4 3	4 2
	6.7	6.0	7.6	8.2	7.5	4.6	4.7	6.0
	11.1	12.5	15.0	14.5	13.7	9.7	11.6	13.1
	0.5-	0.1	1.0	3.0	2.6-	5.1-	0.4-	1.5-
	2.5	3.0	3.0	3.2	5.0	3.7	3.1	3.8
	27	54	67	23	19	15	24	29
EA	2 2	3 3	3 3	2 3	3 3	4 3	4 3	4 2
	28.3	27.5	26.5	26.7	26.0	26.0	24.3	23.5
	34.0	31.0	34.0	29.0	30.3	31.8	29.8	29.1
	26.0	23.5	23.6	23.2	20.5	20.1	20.0	17.5
	1.5	1.7	1.8	1.5	2.1	3.2	2.8	3.0
	27	54	67	23	19	15	24	29
C	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	0.6	0.5	0.5	0.6	0.5	0.5	0.4	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	53	62	72	28	27	22	29	33
P	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	13.0	13.8	14.0	14.0	13.6	13.2	13.2	13.0
	14.5	17.1	16.0	16.5	16.5	16.7	18.0	16.7
	11.0	10.6	5.1	11.0	10.6	10.5	6.6	9.5
	1.0	1.1	1.5	1.3	1.5	1.8	2.2	1.8
	60	62	64	28	27	20	24	30
W	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	6.8	7.0	7.0	6.6	6.1	5.0	6.0	5.8
	12.8	10.2	12.8	10.7	10.2	10.2	10.2	10.7
	1.5	0.0	0.0	3.5	1.0	0.0	2.1	0.0
	2.2	2.1	2.5	1.7	1.7	2.5	2.5	2.8
	60	62	70	28	26	22	28	33
W(X)	6.1-	6.3-	6.1-	5.7-	5.5-	3.8-	3.1-	3.5-
	0.1-	4.8	2.5	1.6-	1.0-	0.0	9.2	1.0
	9.7-	10.2-	12.6-	10.5-	9.5-	8.8-	9.5-	10.0-
	2.3	2.5	3.0	2.1	1.8	2.3	4.0	2.5
W(Y)	1.2-	1.0-	2.0-	2.5-	1.0-	1.8-	1.5-	3.1-
	11.2	7.6	4.6	1.5	5.7	6.0	7.1	6.0
	8.3-	5.6-	9.0-	5.7-	8.0-	8.6-	8.0-	7.8-
	2.8	2.0	2.5	2.0	2.5	2.7	3.7	3.5

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	4 3	2 3	3 3	4 3	5 3	4 2
	26.8	27.0	26.0	25.5	25.3	25.0	24.2	24.0
	30.0	30.0	30.5	26.5	29.0	28.1	28.1	26.5
	25.5	24.2	23.1	24.0	24.0	22.6	23.0	22.6
	0.8	0.9	1.0	0.7	1.1	1.2	1.0	1.0
	53	58	85	17	15	29	26	36
T(W)-T(A)	3 2	3 3	4 3	2 3	3 3	4 3	5 3	4 2
	0.4	0.2	1.2	1.2	1.1	0.5	0.6	0.7
	3.2	3.7	5.5	3.8	3.0	3.0	2.7	2.2
	3.3-	6.0-	2.2-	0.0	1.0-	3.8-	4.3-	1.6-
	1.1	1.5	1.3	1.0	0.9	1.5	1.3	1.0
	27	58	85	16	15	25	25	36
E(W)-E(A)	3 3	4 3	4 3	2 3	3 3	4 3	5 3	4 2
	6.7	7.0	8.3	8.1	7.3	6.0	6.5	6.7
	10.0	12.2	13.0	14.7	11.1	13.2	12.6	11.1
	2.0-	4.5-	1.6	3.1	4.0	0.8	0.5	2.2
	3.0	3.1	2.1	3.1	2.5	2.6	2.7	2.5
	23	36	68	12	13	25	25	36
EA	3 3	4 3	4 3	2 3	3 3	4 3	5 3	4 2
	28.0	27.5	26.0	25.5	25.5	24.3	22.8	22.5
	31.0	30.5	34.1	29.5	31.5	28.6	27.1	26.8
	25.2	23.2	23.2	17.8	21.7	15.2	17.0	19.0
	1.2	1.8	1.8	2.6	2.5	2.7	2.5	2.2
	23	36	68	12	13	25	25	36
C	2 3	3 3	4 3	2 3	3 3	4 3	5 3	4 2
	0.6	0.6	0.5	0.6	0.6	0.5	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.0	0.1	0.3	0.1	0.3	0.0
	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3
	37	60	86	17	16	30	26	37
P	2 3	3 3	4 3	2 3	3 3	4 3	5 3	4 2
	13.1	13.7	14.6	15.3	15.5	16.0	16.5	15.5
	17.0	19.1	17.8	17.1	17.5	18.0	18.0	18.5
	9.0	9.6	10.1	13.0	13.0	14.0	13.7	13.0
	1.5	1.8	1.6	1.3	1.3	1.1	1.1	1.3
	49	50	83	17	16	29	23	32
W	2 3	3 3	4 3	2 3	3 3	4 3	5 3	4 2
	7.0	7.5	7.6	8.1	7.5	6.5	7.5	7.6
	10.7	10.7	13.3	10.3	10.2	10.2	10.2	11.2
	3.5	0.0	2.5	5.0	5.0	3.0	3.0	2.5
	1.7	2.1	2.5	1.7	1.7	1.8	2.3	2.2
	52	60	86	17	16	29	26	37
W(X)	6.7-	6.7-	6.6-	7.6-	6.8-	5.7-	6.5-	6.1-
	3.2-	2.2	2.2	3.8-	3.8-	1.5-	1.5-	2.0-
	10.7-	10.2-	12.6-	10.2-	10.2-	10.0-	10.0-	9.5-
	1.7	2.7	2.8	2.0	1.8	2.1	2.3	2.0
W(Y)	0.6-	0.6-	1.8-	2.0-	1.5-	2.0-	3.3-	4.2-
	4.8	7.1	10.1	0.0	2.1	2.0	1.0-	0.0
	3.8-	4.3-	8.6-	4.6-	4.6-	5.2-	7.0-	7.3-
	1.8	2.5	3.0	1.3	2.1	2.0	1.5	1.8

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 3	3 3	2 3	3 2	4 3	4 3
	26.1	26.1	25.5	25.5	25.0	24.1	23.6	23.5
	29.0	31.0	28.1	30.0	30.5	27.0	28.7	27.0
	24.0	23.1	23.0	23.0	23.0	22.0	21.0	20.5
	0.9	1.2	1.0	1.5	1.5	1.2	1.5	1.3
	57	45	57	20	19	27	39	41
T(W)-T(A)	3 3	4 3	4 3	3 3	2 3	3 2	4 3	4 3
	1.0	0.6	1.1	1.0	2.1	1.5	0.8	1.0
	3.0	3.8	4.5	3.3	4.3	3.5	4.3	3.8
	2.0-	4.0-	0.8-	3.0-	2.2-	2.0-	4.5-	2.0-
	1.0	1.3	1.0	1.5	1.6	1.2	1.7	1.5
	28	41	54	19	19	27	39	41
E(W)-E(A)	3 3	4 3	4 3	3 3	2 3	3 2	4 3	4 3
	7.6	7.1	8.6	8.2	8.3	7.2	4.8	5.7
	10.5	11.8	15.6	12.5	12.2	11.5	10.1	13.7
	3.0	3.3	4.7	3.0	2.2	0.6	0.8-	0.6
	1.7	1.7	2.0	3.3	2.7	2.5	2.5	3.0
	28	38	52	13	16	27	39	41
EA	3 3	4 3	4 3	3 3	2 3	3 2	4 3	4 3
	26.2	26.0	24.3	25.2	25.5	24.1	24.0	23.1
	30.7	30.1	26.8	28.5	30.5	29.0	30.2	28.5
	23.6	23.6	20.2	20.5	21.6	18.5	19.7	17.8
	1.5	1.3	1.6	2.2	2.6	2.6	2.7	2.7
	28	38	52	13	16	27	39	41
C	2 3	3 3	4 3	3 3	2 3	4 2	4 3	4 3
	0.5	0.5	0.4	0.4	0.5	0.5	0.6	0.7
	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1
	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2
	48	47	58	21	20	28	38	41
P	2 3	3 3	4 3	3 3	2 3	3 2	4 3	4 3
	14.0	14.8	14.7	14.3	13.6	17.1	17.3	16.8
	18.1	18.1	17.0	17.1	17.5	22.2	21.5	20.0
	9.6	10.7	10.5	10.5	8.0	12.0	13.0	14.5
	1.6	1.3	1.5	2.0	2.5	2.7	2.0	1.3
	58	47	52	21	20	27	39	41
W	2 3	4 3	4 3	3 3	2 3	4 2	4 3	4 3
	6.6	6.7	7.5	8.3	6.7	7.0	6.6	7.2
	14.3	12.8	16.5	14.3	11.2	12.8	10.7	12.8
	2.5	0.0	1.1	2.5	3.0	2.0	0.0	1.0
	2.1	2.5	3.3	3.0	2.3	2.5	2.6	2.2
	57	46	57	21	20	28	39	41
W(X)	6.0-	5.6-	6.1-	5.8-	5.8-	6.5-	5.5-	6.2-
	0.0	0.0	3.2	5.6	1.7	0.7-	7.6	0.8-
	12.3-	12.6-	15.1-	14.1-	11.2-	12.6-	10.7-	12.0-
	2.3	3.0	3.7	4.6	3.3	2.7	3.5	2.3
W(Y)	0.5-	0.4-	1.0-	3.5-	1.0-	1.5-	2.5-	2.7-
	5.0	6.6	8.0	2.3	3.8	2.5	1.5	3.8
	7.2-	8.0-	15.5-	13.3-	4.7-	4.6-	5.1-	6.6-
	2.8	3.3	3.8	3.5	2.0	1.8	1.6	2.3

DECEMBER 1963

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	24.6	24.5	25.0	24.7	24.1	23.5	22.5	22.2
	27.1	26.1	27.0	27.6	26.0	26.0	26.0	24.2
	23.0	22.6	23.0	20.0	23.6	21.5	18.0	20.5
	0.9	0.9	0.9	1.5	0.5	1.1	1.5	1.0
	58	32	79	28	18	13	28	43
T(W)-T(A)	3 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	1.6	1.3	1.0	1.1	0.6	0.5	1.2	1.3
	4.5	4.2	5.0	4.5	2.0	3.2	6.0	4.3
	2.1-	1.8-	3.3-	2.6-	0.2-	1.6-	2.7-	2.1-
	1.6	1.7	1.7	1.5	0.5	1.3	1.8	1.5
	32	28	73	28	18	13	28	43
E(W)-E(A)	3 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	9.1	7.5	7.0	6.5	5.2	5.0	6.6	7.0
	19.8	16.6	14.3	9.7	7.5	10.8	11.0	23.0
	2.3	1.0	1.2-	1.6	0.6-	0.5	1.3	4.1-
	3.6	4.0	3.3	1.8	2.0	3.2	3.0	4.0
	32	28	73	28	18	13	28	43
EA	3 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	23.1	24.0	24.8	25.0	24.2	23.1	20.8	20.5
	26.0	29.0	32.8	31.2	29.0	28.5	25.7	29.0
	18.5	14.8	20.5	19.0	22.2	16.7	17.1	7.5
	2.2	2.6	2.3	3.0	1.7	3.2	2.3	3.5
	32	28	73	28	18	13	28	43
C	2 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	0.5	0.6	0.5	0.3	0.3	0.4	0.5	0.6
	1.0	1.0	1.0	0.9	0.6	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
	0.3	0.4	0.3	0.2	0.2	0.3	0.3	0.3
	53	33	83	31	21	14	29	44
P	2 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	14.3	15.0	14.7	15.8	16.5	16.5	17.0	17.5
	18.1	20.0	20.0	20.0	20.0	19.5	19.1	22.0
	11.2	11.5	9.0	12.0	12.1	14.7	13.5	13.7
	1.6	1.8	2.0	1.8	2.0	1.3	1.5	2.0
	60	33	82	31	21	12	27	39
W	2 3	3 3	4 3	4 4	3 3	4 3	5 3	4 3
	6.5	5.5	5.0	4.0	5.0	6.2	7.1	7.0
	15.3	10.2	12.8	8.1	8.1	10.2	12.8	12.8
	2.0	0.5	0.0	0.5	2.0	2.0	2.2	0.0
	2.6	2.7	2.5	2.5	1.8	2.6	2.3	2.2
	60	33	81	29	21	14	29	44
W(X)	4.1-	2.7-	3.7-	2.2-	4.8-	5.5-	6.1-	6.0-
	7.6	8.0	3.3	6.1	2.0-	2.0-	1.7-	0.0
	11.2-	10.0-	12.0-	7.1-	7.6-	10.0-	12.6-	12.6-
	4.0	4.5	3.0	3.5	1.6	2.8	2.5	2.3
W(Y)	2.8-	1.0-	0.7-	0.2-	0.0	0.2-	2.3-	2.3-
	2.3	4.1	8.3	7.5	2.5	5.7	7.0	2.8
	14.5-	7.0-	9.6-	4.1-	4.1-	4.0-	7.8-	8.3-
	2.8	3.0	3.0	2.1	1.6	2.5	2.6	2.5

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JANUARY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	4 3	4 4	4 3	4 3	5 3	4 3	4 3
	24.5	24.3	24.2	23.3	22.7	22.5	21.8	21.3
	26.0	26.0	26.0	25.5	25.0	27.6	26.5	26.0
	22.6	21.0	23.1	21.0	21.0	20.5	20.0	19.0
	0.7	1.0	0.8	1.0	1.0	1.3	1.2	1.1
	75	46	53	30	30	45	61	73
T(W)-T(A)	4 3	4 3	4 4	4 3	4 3	5 3	4 3	4 3
	1.1	1.1	1.0	1.1	1.0	0.4	0.7	0.9
	3.0	4.5	3.3	3.7	2.7	3.6	3.7	3.1
	1.2-	1.1-	1.1-	0.5-	0.4-	4.5-	3.3-	3.2-
	1.0	1.2	1.0	1.0	0.8	1.5	1.3	1.2
	44	42	53	30	30	45	59	68
E(W)-E(A)	4 3	4 3	4 4	4 3	4 4	4 3	4 3	4 3
	6.5	6.3	7.0	7.7	7.3	6.6	6.5	6.3
	13.2	13.1	11.5	11.5	11.2	11.7	11.0	10.5
	1.6-	0.7	3.0	4.2	3.7	1.3	0.1	0.3-
	3.0	3.0	2.0	1.8	1.8	2.1	2.3	2.3
	40	40	53	26	14	27	39	43
EA	4 3	4 3	4 4	4 3	4 4	4 3	4 3	4 3
	24.3	24.2	23.5	21.3	21.1	20.0	19.5	19.0
	31.0	29.7	28.3	26.3	27.3	25.2	22.8	26.1
	17.2	21.7	19.1	17.0	17.1	15.0	15.8	14.3
	2.5	1.8	1.7	2.2	2.3	2.0	2.0	2.2
	40	40	53	26	14	27	39	43
C	3 3	4 3	4 4	4 3	4 3	5 3	4 3	4 3
	0.5	0.5	0.4	0.6	0.6	0.7	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1
	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	72	53	56	31	30	45	61	75
P	3 3	4 3	4 4	4 3	4 3	5 3	4 3	3 3
	15.3	16.8	16.1	18.0	18.8	19.5	18.7	18.3
	21.0	22.0	21.1	22.2	21.0	21.5	22.5	22.1
	9.1	9.5	6.6	12.5	12.5	15.5	15.0	12.5
	2.6	2.8	2.6	2.6	2.2	1.5	1.6	2.0
	75	50	51	31	31	45	61	71
W	3 3	4 3	4 4	4 3	4 3	5 3	4 3	4 3
	8.2	8.2	7.5	7.0	8.2	8.8	9.1	9.0
	14.3	16.0	14.3	12.8	13.8	13.8	15.3	15.3
	2.5	1.5	0.0	1.5	4.5	4.5	5.0	4.0
	2.6	3.0	3.1	2.2	2.0	2.5	2.6	3.0
	78	53	55	31	31	45	62	75
W(X)	6.8-	6.6-	5.7-	6.2-	7.2-	7.7-	8.0-	7.5-
	1.7	2.5	9.6	1.2-	0.1-	2.8-	3.8-	0.9
	14.2-	16.0-	14.1-	12.6-	13.8-	13.0-	15.1-	15.3-
	3.2	4.0	4.1	2.3	2.3	2.5	2.5	3.3
W(Y)	2.9-	2.5-	2.1-	1.7-	1.5-	3.1-	3.5-	4.2-
	5.2	6.2	3.7	6.2	9.2	8.5	2.5	0.1-
	9.9-	10.2-	12.0-	7.0-	7.3-	9.0-	11.0-	10.0-
	3.2	3.1	3.0	2.7	3.5	3.0	2.3	1.5

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	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 4	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	24.3	24.2	23.5	23.0	22.1	21.5	21.0	21.0
	26.0	27.0	26.7	25.6	25.0	26.0	24.0	26.0
	22.1	21.0	21.5	21.2	20.0	19.2	19.2	14.7
	0.8	1.2	0.8	0.8	1.0	1.6	1.0	1.6
	42	28	109	44	29	34	51	53
T(W)-T(A)	2 3	4 3	4 3	3 3	2 3	4 3	4 3	3 3
	0.5	0.6	0.9	0.7	1.3	1.1	1.5	1.0
	2.0	4.5	3.6	2.1	3.1	3.1	4.0	10.6
	0.5-	2.0-	1.2-	1.6-	1.1-	2.0-	1.5-	4.0-
	0.8	1.3	0.9	0.7	1.0	1.5	1.1	2.0
	17	28	109	44	26	28	47	46
E(W)-E(A)	2 3	4 3	4 3	3 3	2 3	4 3	4 3	3 3
	6.6	7.5	7.3	5.8	6.2	5.6	5.8	5.1
	11.0	13.0	13.3	11.5	8.8	10.1	13.1	18.5
	3.7	2.0	2.6-	2.1	4.5	0.4-	1.3-	1.5-
	1.5	2.6	2.8	1.5	1.1	2.5	3.0	3.3
	17	27	108	41	23	25	45	43
EA	2 3	4 3	4 3	3 3	2 3	4 3	4 3	3 3
	23.5	22.1	21.5	21.6	21.0	20.2	19.6	20.0
	26.0	27.7	30.7	24.5	22.7	26.0	22.6	24.6
	20.5	18.5	15.6	18.1	18.7	15.6	14.7	12.0
	1.5	2.1	2.6	1.3	1.1	2.6	2.0	2.5
	17	27	108	41	23	25	45	43
C	2 3	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	0.6	0.4	0.4	0.4	0.7	0.6	0.7	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3
	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2
	33	28	105	44	29	35	48	54
P	2 4	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	15.1	16.5	16.7	16.6	15.7	17.3	16.8	16.8
	18.5	22.0	22.5	21.5	20.0	23.0	24.5	21.0
	13.0	13.6	11.7	13.0	12.0	11.0	11.0	10.6
	1.5	2.1	2.1	2.0	2.2	2.8	2.7	2.2
	42	28	109	44	29	35	51	56
W	2 4	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	8.0	8.2	8.8	9.3	10.1	8.3	8.0	8.0
	11.2	12.8	17.5	15.5	17.0	15.3	13.3	14.3
	4.0	5.0	0.0	4.0	4.5	4.0	4.5	0.0
	2.0	2.1	3.2	2.5	3.0	2.7	2.1	2.3
	42	28	109	44	28	35	51	56
W(X)	7.6-	7.6-	7.7-	8.0-	9.3-	7.3-	7.0-	7.0-
	4.0-	2.1-	0.0	0.7-	4.3-	3.8-	3.2-	0.0
	11.1-	12.6-	13.6-	15.1-	15.8-	14.5-	11.5-	14.1-
	1.9	2.5	2.7	2.6	3.0	2.5	2.0	2.6
W(Y)	0.9-	1.5-	3.0-	3.8-	3.0-	3.1-	3.0-	2.2-
	7.8	2.0	2.5	2.0	1.6	1.6	3.3	7.7
	4.0-	6.2-	15.1-	11.1-	8.7-	9.8-	11.1-	6.3-
	2.5	2.0	3.2	2.5	2.6	2.5	2.5	2.6

MARCH 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	2 3	3 2	4 3	3 3	3 3	3 3	4 3	3 2	
	24.1	24.2	23.6	23.1	22.5	22.2	21.0	20.7	
	28.0	34.0	32.0	28.0	28.0	28.1	25.0	28.0	
	20.0	17.5	22.0	21.0	20.0	20.0	18.7	18.1	
	1.2	1.6	1.2	1.1	1.2	1.5	1.3	1.6	
	55	84	97	54	48	42	39	52	
T(W)-T(A)	3 3	3 2	4 3	3 3	3 3	4 3	4 3	4 2	
	0.3-	0.1-	0.6	0.4	0.5	0.4	1.1	1.3	
	4.6	7.5	3.8	4.0	2.6	3.7	3.8	4.5	
	5.8-	8.0-	7.0-	3.0-	1.5-	5.0-	1.0-	1.5-	
	2.3	2.1	1.3	1.1	0.8	1.5	1.5	1.5	
	29	81	93	49	41	33	30	47	
E(W)-E(A)	2 3	3 2	4 3	3 3	3 3	4 3	4 3	4 2	
	4.6	5.3	5.8	3.6	4.8	4.5	6.1	6.7	
	9.8	13.1	10.3	7.7	8.7	9.0	11.6	14.2	
	1.0-	2.2-	2.2-	0.3-	0.0	2.8-	0.9-	0.9-	
	3.5	2.7	2.1	2.0	2.3	3.0	3.0	3.2	
	26	78	89	42	36	31	26	45	
EA	2 3	3 2	4 3	3 3	3 3	4 3	4 3	4 2	
	24.0	23.0	22.5	23.5	21.5	21.5	18.7	18.0	
	27.3	28.0	29.0	27.5	26.2	29.2	25.7	25.7	
	21.3	15.5	19.1	20.1	16.7	16.7	14.7	12.3	
	1.5	2.0	2.0	1.8	2.7	2.8	2.8	3.0	
	26	78	89	42	36	31	26	45	
C	2 3	3 2	4 3	3 3	3 3	3 3	4 3	3 2	
	0.6	0.5	0.5	0.6	0.7	0.6	0.8	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.4	
	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	
	45	84	98	52	47	41	39	51	
P	2 3	3 2	4 3	3 3	3 3	3 3	4 3	3 2	
	14.8	15.7	16.6	16.8	18.1	18.5	19.0	17.7	
	18.5	21.0	20.2	21.2	23.0	22.0	22.2	22.2	
	10.5	12.0	11.7	11.5	12.5	14.1	15.1	10.5	
	1.3	1.8	2.0	2.2	2.5	2.0	1.6	2.3	
	55	84	98	54	47	39	39	52	
W	2 3	3 2	4 3	3 3	3 3	3 3	4 3	3 2	
	6.6	7.0	6.6	7.6	9.6	9.2	9.8	9.0	
	10.2	13.8	11.7	12.8	15.3	16.5	17.0	15.3	
	1.5	1.0	0.0	2.0	3.0	3.0	5.0	2.0	
	1.8	2.2	2.7	2.5	3.0	2.5	2.5	2.5	
	55	84	97	53	48	43	39	50	
W(X)	5.9-	6.3-	5.5-	7.0-	9.1-	8.7-	8.7-	6.5-	
	4.7	0.9	3.5	0.1-	2.8-	2.8-	4.2-	3.8	
	9.7-	13.8-	11.5-	12.6-	15.3-	15.3-	14.5-	11.6-	
	2.4	2.5	3.5	2.8	3.0	2.5	2.2	4.0	
W(Y)	0.5	0.3	0.1-	0.1	1.8-	1.8-	3.5-	4.6-	
	7.2	7.1	9.7	7.6	2.3	3.0	3.7	3.0	
	8.0-	8.6-	7.6-	6.0-	6.6-	7.7-	11.8-	10.0-	
	2.9	2.8	3.0	2.6	2.0	2.5	3.1	2.5	

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	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	2 3	4 3	4 3	3 3	3 3	5 3	4 3	5 3	
	24.5	24.2	24.0	23.0	22.6	21.5	20.7	20.3	
	27.0	26.1	27.1	24.2	24.5	23.1	27.6	25.0	
	21.0	22.5	21.7	22.0	21.5	20.0	18.7	18.1	
	1.0	1.0	0.8	0.6	0.8	0.9	1.5	1.2	
	62	42	87	36	25	22	34	50	
T(W)-T(A)	3 3	4 3	4 3	3 3	3 3	5 3	4 3	4 3	
	1.0	0.7	0.7	0.7	0.3	1.0	1.0	0.7	
	5.7	6.7	5.0	3.0	1.5	3.0	5.0	3.6	
	2.1-	2.3-	2.0-	1.0-	1.5-	2.1-	5.5-	4.5-	
	2.0	1.8	1.0	0.7	0.7	1.1	1.6	1.5	
	33	40	86	36	25	21	30	44	
E(W)-E(A)	3 3	4 3	4 3	3 3	3 3	5 3	5 3	4 3	
	5.6	5.3	6.1	6.0	5.2	5.8	5.1	5.0	
	12.5	14.2	12.8	8.5	8.3	10.3	10.2	10.0	
	0.1-	0.1-	0.6	2.2	2.3	1.3-	0.4-	3.1-	
	3.5	2.8	2.2	1.5	1.3	3.2	3.1	2.6	
	31	39	86	34	22	17	28	44	
EA	3 3	4 3	4 3	3 3	3 3	5 3	5 3	4 3	
	24.7	24.5	23.0	21.6	21.1	20.1	19.6	18.7	
	29.7	29.7	27.3	25.7	25.0	25.7	25.7	24.1	
	19.3	22.2	16.8	19.0	18.7	14.5	14.5	14.1	
	2.3	1.5	1.8	1.8	1.5	2.7	2.8	2.3	
	31	39	86	34	22	17	28	44	
C	3 3	4 3	4 3	3 3	3 3	5 3	4 3	4 2	
	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.1	0.0	0.1	0.1	0.3	0.3	0.3	0.1	
	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	
	41	43	86	34	24	22	34	53	
P	2 3	4 3	4 3	3 3	3 3	5 3	4 3	4 2	
	14.8	16.5	15.8	17.3	18.0	19.0	19.1	18.5	
	18.6	20.1	19.6	20.5	22.5	22.2	22.5	23.2	
	10.6	12.7	7.5	15.0	15.0	16.5	16.0	12.0	
	2.0	2.0	1.8	1.3	1.8	1.6	2.0	2.2	
	62	43	89	36	25	22	34	53	
W	2 3	4 3	4 3	3 3	3 3	5 3	4 3	4 2	
	7.2	7.8	8.2	8.5	9.1	7.7	7.5	7.6	
	16.5	15.3	17.3	13.0	14.8	15.3	15.3	15.3	
	3.0	1.5	1.5	3.5	4.5	2.0	2.0	2.0	
	3.1	3.1	3.0	1.6	3.0	2.5	3.2	3.2	
	62	42	89	36	25	22	34	53	
W(X)	6.2-	6.5-	7.0-	7.7-	8.5-	6.6-	6.0-	6.1-	
	4.6	1.3	3.1	1.7-	4.0-	2.0-	0.1	2.6	
	14.2-	14.5-	15.7-	12.2-	14.8-	14.5-	14.5-	14.5-	
	3.4	3.5	3.6	1.7	3.0	2.5	3.2	3.2	
W(Y)	0.3-	0.5-	0.2-	2.8-	3.0-	3.6-	4.0-	3.8-	
	5.1	8.6	8.5	2.5	0.8	0.0	0.0	0.0	
	8.4-	9.8-	11.0-	5.6-	5.5-	8.0-	7.8-	11.1-	
	3.5	4.2	4.0	1.8	1.6	1.7	2.2	2.2	

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MAY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 4	3 3	3 3	4 2	5 3	4 2
	25.0	24.8	24.2	24.0	23.8	22.3	22.1	21.5
	26.5	31.0	27.0	30.0	28.0	28.7	28.0	25.5
	22.1	22.5	21.5	21.5	21.5	19.6	19.0	18.0
	0.6	1.0	0.9	1.5	1.3	1.8	1.5	1.6
	62	59	106	27	23	28	49	52
T(W)-T(A)	3 2	4 3	4 4	3 3	3 3	4 2	5 3	4 3
	0.4	0.0	0.4	0.3	0.0	0.4	0.2	0.7
	3.0	3.1	4.0	2.2	3.0	4.2	2.1	3.8
	2.7-	4.0-	4.0-	5.0-	3.0-	5.0-	3.8-	4.0-
	1.1	1.5	1.0	1.3	1.1	2.0	1.2	1.5
	34	59	106	27	23	28	48	51
E(W)-E(A)	3 2	4 2	4 4	3 3	3 3	4 2	5 3	4 2
	4.5	5.0	5.7	4.6	3.0	4.6	3.7	4.2
	8.5	10.5	11.8	11.0	6.2	8.8	12.8	10.7
	0.2	1.0-	0.9-	0.7-	2.7-	1.6-	0.9-	1.3-
	2.0	2.6	2.0	2.0	2.1	3.1	2.8	2.5
	34	57	105	27	23	26	44	50
EA	3 2	4 2	4 4	3 3	3 3	4 2	5 3	4 2
	26.2	24.5	23.3	23.8	24.8	21.5	21.8	20.7
	29.5	32.8	28.5	28.5	29.0	26.5	28.7	27.6
	22.5	19.6	18.3	20.0	22.5	17.6	15.6	14.1
	1.6	2.3	1.7	2.0	1.6	2.6	2.7	2.8
	34	57	105	27	23	26	44	50
C	3 3	4 3	4 4	3 3	3 3	4 2	5 3	4 2
	0.7	0.7	0.6	0.7	0.6	0.7	0.8	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
	45	60	104	27	24	28	49	51
P	2 3	4 3	4 4	3 3	3 3	4 2	5 3	4 3
	13.8	16.0	16.5	16.7	17.0	18.0	18.2	18.0
	18.5	20.0	19.5	21.5	20.0	21.6	23.0	23.5
	10.5	10.0	12.8	13.0	14.6	13.1	6.7	15.0
	1.5	2.0	1.5	1.6	1.3	1.7	2.5	1.5
	64	57	103	27	24	28	45	48
W	2 3	4 3	4 4	3 3	3 3	4 2	5 3	4 2
	6.8	7.2	6.6	9.2	8.5	8.5	8.0	8.5
	11.2	10.7	13.8	14.6	12.3	16.0	12.8	12.8
	2.0	0.0	0.0	7.5	6.1	4.5	2.0	2.5
	2.0	2.1	3.3	1.6	1.1	2.5	2.3	2.2
	63	60	106	27	24	28	49	52
W(X)	6.0-	7.0-	6.3-	8.5-	7.8-	7.5-	7.1-	7.2-
	6.3	0.0	0.0	6.2-	5.7-	3.5-	0.4	0.1
	11.2-	10.7-	13.8-	14.3-	11.5-	15.6-	12.0-	12.0-
	2.8	2.1	3.2	1.7	1.1	2.5	2.3	2.5
W(Y)	1.4	0.4	0.8-	3.0-	2.8-	2.5-	2.6-	4.0-
	7.8	6.5	5.8	0.1-	0.1-	2.5	2.6	0.1-
	5.3-	4.6-	5.1-	5.2-	4.6-	10.1-	9.3-	9.5-
	2.6	2.3	2.0	1.3	1.0	2.7	2.2	2.0

JUNE 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	3 3	3 3	2 4	4 3	4 3	4 2
	26.0	25.7	25.3	24.8	24.1	23.6	22.8	21.7
	28.1	28.0	28.5	28.7	27.2	27.0	25.0	24.2
	22.6	21.0	23.7	23.0	22.0	21.5	21.5	20.0
	0.9	1.0	0.8	1.0	1.0	1.7	1.0	1.2
	50	53	95	67	41	10	26	34
T(W)-T(A)	2 2	3 3	3 3	3 3	3 4	4 3	4 3	4 2
	0.6-	0.1	0.3	0.2	0.4	0.2	0.6	1.0
	1.3	2.7	2.1	2.1	2.7	2.2	2.6	3.1
	3.1-	1.6-	2.5-	5.0-	3.2-	3.0-	3.5-	2.1-
	1.1	0.9	0.8	1.0	1.0	1.8	1.2	1.1
	19	49	94	66	40	10	26	34
E(W)-E(A)	2 2	3 3	3 3	3 3	3 4	4 3	4 3	4 2
	3.8	4.8	5.1	4.7	5.0	6.1	6.0	6.0
	9.0	9.7	10.8	12.2	12.0	9.2	9.0	11.8
	0.1-	0.6	0.9-	0.4-	2.3	2.7	1.5-	1.6
	2.2	2.0	2.6	2.2	1.5	2.0	2.2	2.7
	19	49	94	66	40	8	23	33
EA	2 2	3 3	3 3	3 3	3 4	4 3	4 3	4 2
	28.1	26.5	25.6	25.1	24.0	21.8	21.5	20.0
	30.7	29.8	31.5	31.0	28.2	25.7	29.5	28.0
	24.7	22.8	20.8	18.3	19.5	19.3	18.6	13.0
	1.5	1.2	2.0	2.1	1.8	1.8	2.3	2.6
	19	49	94	66	40	8	23	33
C	2 3	3 3	3 3	3 3	3 4	4 3	4 3	4 2
	0.6	0.5	0.5	0.5	0.5	0.4	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.3
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	41	56	96	67	42	10	26	34
P	2 3	3 3	3 3	3 3	2 4	4 3	4 3	4 2
	14.2	14.8	15.0	15.5	15.3	16.5	17.0	17.1
	18.5	18.8	20.0	21.1	20.0	18.5	19.1	19.1
	11.7	10.5	11.0	10.5	10.0	14.5	14.0	12.5
	1.2	1.5	1.7	2.0	2.1	1.5	1.2	1.2
	51	56	96	65	39	9	25	32
W	2 3	3 3	3 3	3 3	3 4	4 3	4 3	4 2
	6.6	7.3	8.0	7.0	7.3	6.3	7.3	6.5
	10.7	10.7	14.6	12.8	10.7	10.2	15.3	12.3
	4.5	2.5	0.0	2.5	2.5	3.5	3.0	2.5
	1.6	1.8	2.6	2.5	2.3	2.0	3.0	2.3
	51	56	96	66	42	10	26	34
W(X)	6.0-	6.8-	7.5-	6.2-	6.3-	5.5-	6.5-	5.0-
	5.1	1.0	2.2	0.7-	2.0-	1.6-	2.2-	1.0-
	10.7-	10.7-	14.3-	12.6-	10.0-	7.7-	13.0-	11.1-
	2.2	2.2	3.0	2.5	2.1	2.0	2.6	2.3
W(Y)	0.3	1.0-	0.7-	2.0-	3.0-	2.0-	3.1-	3.7-
	9.0	6.0	8.1	1.5	0.0	1.1	0.0	0.4
	4.7-	5.0-	7.0-	7.2-	7.5-	6.6-	10.0-	7.8-
	2.6	2.3	2.6	2.3	2.1	2.2	2.1	1.7

JULY 1964

	LONGITUDE WEST 170 – 165	165 – 160	160 – 155	155 – 150	150 – 145	145 – 140	140 – 135	135 – 130
T(A)	2 3 26.3 31.0 25.0 1.0 74	4 3 26.3 32.0 24.0 1.1 72	3 3 25.5 32.0 22.0 1.2 104	3 3 25.0 30.0 23.0 1.2 56	3 3 24.6 27.6 23.0 1.0 38	3 3 24.7 28.5 21.0 2.0 24	4 3 23.7 28.1 21.0 1.8 30	4 2 23.0 28.1 20.0 2.0 31
T(W)-T(A)	4 2 0.3 3.0 3.2- 1.3 28	4 3 0.6 4.0 3.6- 1.1 43	3 3 0.8 4.0 4.0- 1.1 91	3 3 0.8 3.0 3.0- 1.1 52	3 3 0.9 5.0 2.1- 1.5 35	3 3 0.4 3.5 3.5- 2.2 21	4 3 0.3 3.3 3.8- 1.5 29	4 2 0.6 3.3 4.3- 1.5 31
E(W)-E(A)	4 2 7.0 11.6 2.7 2.5 28	4 3 6.6 13.3 1.1 2.5 42	3 3 6.7 11.7 0.5 2.2 90	3 3 5.1 9.7 2.3 1.6 52	3 3 6.5 10.2 0.2- 2.0 35	3 3 6.6 15.5 2.1 3.2 21	4 3 5.1 8.8 0.9- 2.7 29	4 2 5.0 10.5 0.6- 2.8 31
EA	4 2 26.8 30.7 23.7 1.5 28	4 3 26.1 29.7 22.1 1.7 42	3 3 25.3 32.2 20.6 2.2 90	3 3 26.0 29.0 22.7 1.2 52	3 3 24.2 27.3 20.0 1.5 35	3 3 23.5 26.5 20.2 1.7 21	4 3 22.7 28.0 17.5 2.7 29	4 2 22.3 27.6 16.1 3.0 31
C	2 3 0.5 1.0 0.0 0.2 72	4 3 0.5 1.0 0.1 0.2 72	3 3 0.5 1.0 0.0 0.2 104	3 3 0.5 1.0 0.0 0.2 56	3 3 0.5 1.0 0.1 0.2 39	3 3 0.6 1.0 0.3 0.3 24	4 3 0.8 1.0 0.3 0.2 31	3 2 0.9 1.0 0.4 0.2 33
P	2 3 15.1 20.0 12.0 1.5 77	4 3 16.2 22.0 13.5 1.5 70	3 3 16.0 23.0 12.5 2.0 102	3 3 15.2 22.0 12.5 2.0 50	3 3 15.1 20.0 12.5 2.0 36	3 3 15.0 19.0 12.5 1.8 20	4 3 15.8 19.1 12.5 1.8 29	4 3 14.2 17.1 10.0 1.7 29
W	2 3 7.0 12.8 2.5 2.0 78	4 3 7.0 12.8 1.5 2.1 72	3 3 7.7 13.8 0.0 2.7 104	3 3 7.1 10.7 2.8 2.0 56	3 3 7.3 11.2 2.0 2.2 39	3 3 5.1 11.2 0.5 3.0 23	4 3 7.1 12.8 3.0 2.5 28	3 2 7.7 12.8 3.5 2.2 32
W(X)	6.7- 2.0- 12.7- 2.1	6.6- 1.0- 12.0- 2.1	7.0- 0.0 13.0- 2.5	6.2- 1.0- 10.5- 2.3	5.6- 0.9- 11.0- 2.6	4.3- 3.2 10.5- 3.5	6.0- 2.2- 11.0- 2.5	5.5- 1.6- 9.7- 2.2
W(Y)	1.0- 2.1 4.0- 1.4	1.3- 2.3 5.1- 1.6	2.3- 3.5 9.5- 2.5	3.0- 2.2 7.0- 1.5	3.8- 0.0 7.2- 2.2	1.5- 4.0 4.0- 1.5	3.5- 1.5- 6.5- 1.5	5.0- 1.0- 10.1- 2.0

AUGUST 1964

	LONGITUDE WEST 170 – 165	165 – 160	160 – 155	155 – 150	150 – 145	145 – 140	140 – 135	135 – 130
T(A)	2 3 26.5 31.5 23.7 1.0 74	3 3 26.5 29.0 25.0 0.8 59	3 3 25.8 28.0 24.0 0.7 83	2 4 25.5 28.0 23.8 0.9 27	3 3 24.8 27.0 23.1 1.0 12	4 3 25.1 29.0 22.0 2.0 29	5 3 24.3 30.0 21.0 2.0 41	4 2 24.1 30.5 22.0 1.8 45
T(W)-T(A)	3 2 0.5 3.7 3.7- 1.1 46	3 3 0.4 1.5 2.0- 0.7 59	3 3 0.4 2.6 2.0- 0.8 77	2 4 0.4 1.5 1.0- 0.6 27	3 3 0.2 2.2 3.0- 1.1 12	5 3 0.6- 2.8 4.1- 2.0 25	5 3 0.0 3.0 5.0- 2.0 40	4 2 0.2- 3.2 6.6- 2.0 45
E(W)-E(A)	3 2 6.5 10.3 3.2 1.6 46	3 3 6.3 11.2 2.0 2.0 59	3 3 5.7 10.8 0.1 2.0 77	2 4 5.6 10.0 3.0 1.7 27	3 3 5.0 7.5 2.0 1.8 12	5 3 6.6 10.1 2.0 2.0 25	5 3 6.7 12.6 2.0 2.0 40	4 2 6.0 10.2 7.2- 3.1 42
EA	3 2 27.5 32.3 24.5 1.5 46	3 3 26.7 31.5 22.2 1.8 59	3 3 26.3 31.0 21.1 1.8 77	2 4 25.7 29.0 19.8 1.8 27	3 3 24.7 27.5 22.0 1.7 12	5 3 22.3 26.5 19.1 2.0 25	5 3 22.0 25.2 17.8 1.7 40	4 2 22.2 29.1 18.1 2.6 42
C	3 3 0.6 1.0 0.1 0.3 61	3 3 0.6 1.0 0.1 0.2 61	3 3 0.5 1.0 0.0 0.3 84	2 4 0.4 0.9 0.0 0.2 30	3 3 0.5 0.9 0.1 0.3 14	4 3 0.6 1.0 0.1 0.3 30	5 3 0.8 1.0 0.1 0.3 40	4 2 0.8 1.0 0.1 0.2 44
P	2 3 14.2 17.5 11.0 1.2 75	3 3 14.5 18.5 11.7 1.5 59	3 3 15.0 18.5 12.0 1.5 82	2 4 15.8 20.0 13.5 1.5 30	3 3 15.2 19.1 12.1 1.8 14	4 3 16.7 20.1 13.0 1.8 29	5 3 16.6 20.0 13.0 1.7 42	4 2 16.0 20.1 11.0 1.8 45
W	2 3 6.8 13.8 2.0 2.0 73	3 3 7.2 12.8 0.4 2.1 60	3 3 6.3 10.2 0.0 2.0 82	2 3 8.0 11.7 5.0 1.5 26	3 3 7.7 13.3 5.0 2.1 14	4 3 6.5 10.2 2.0 2.0 30	5 3 7.1 13.8 2.0 2.5 42	4 2 7.0 10.2 2.5 1.7 45
W(X)	6.7- 1.9- 13.9- 2.1	7.0- 0.2 12.8- 2.1	5.6- 2.0 9.5- 2.3	7.3- 4.7- 11.5- 1.5	6.5- 3.8- 10.1- 1.8	5.5- 1.2- 9.5- 2.2	6.0- 0.5- 13.0- 2.8	4.6- 1.3 8.8- 2.6
W(Y)	0.5- 6.5 5.6- 1.8	1.0- 4.2 5.0- 1.6	1.7- 3.8 7.1- 2.0	2.0- 5.2 4.6- 1.7	3.6- 0.1- 8.6- 2.5	2.7- 1.3 6.0- 1.5	3.5- 1.3- 6.6- 1.2	4.5- 3.5 7.1- 1.7

SEPTEMBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	3 3	4 3	3 3	4 3	4 3	4 2
	26.3	26.2	26.0	25.2	24.3	24.6	23.8	24.0
	30.0	29.0	29.5	27.6	26.3	28.7	30.0	29.2
	24.3	24.6	24.0	23.0	23.0	22.0	20.5	20.5
	1.0	1.0	1.0	1.1	1.1	1.5	2.1	2.0
	48	26	59	19	16	24	28	36
T(W)-T(A)	3 3	4 3	3 3	4 3	3 3	4 3	4 3	4 2
	0.7	1.0	0.4	0.5	1.1	0.2	0.8	0.2
	2.1	4.2	2.5	4.0	4.0	3.0	3.7	3.3
	2.0-	1.5-	4.8-	1.6-	0.8-	5.0-	6.0-	5.0-
	1.0	1.2	1.1	1.5	1.5	1.7	1.7	2.1
	23	26	59	19	16	24	28	36
E(W)-E(A)	3 3	4 3	3 3	4 3	3 3	4 3	4 3	4 2
	7.7	7.5	6.6	6.0	5.5	4.7	6.2	7.1
	12.8	14.0	14.8	9.3	7.7	8.7	11.2	14.5
	3.3	2.1	0.1-	2.5	2.5	0.1-	2.2	1.5-
	2.1	2.6	2.7	1.6	1.5	2.0	2.2	3.2
	23	26	59	18	16	24	28	36
EA	3 3	4 3	3 3	4 3	3 3	4 3	4 3	4 2
	27.0	26.7	25.7	25.0	25.5	24.7	23.0	21.2
	32.5	30.5	31.6	27.0	27.6	28.7	26.8	28.0
	24.3	22.0	20.0	22.3	23.8	22.0	17.1	14.5
	2.0	2.2	2.3	1.1	0.9	1.8	2.5	3.8
	23	26	59	18	16	24	28	36
C	3 3	4 3	3 3	4 3	4 3	4 3	4 3	4 2
	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0
	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3
	28	27	58	19	18	25	28	37
P	2 3	4 3	3 3	4 3	4 3	4 3	4 3	4 2
	12.7	13.5	14.0	15.0	15.8	15.2	14.5	14.0
	15.0	15.7	17.0	16.6	19.0	19.0	18.0	17.1
	10.5	10.5	9.2	11.7	13.0	11.5	11.0	10.0
	1.1	1.5	1.8	1.0	1.6	1.6	1.8	1.6
	48	26	57	19	17	25	27	33
W	2 3	4 3	3 3	4 3	4 3	4 3	4 3	4 2
	5.2	7.1	7.7	8.2	8.5	8.5	6.8	7.2
	10.2	12.8	15.3	10.6	10.5	11.7	10.2	10.2
	0.0	0.0	0.0	4.0	5.6	5.0	2.5	2.5
	2.0	2.8	3.0	2.0	1.2	1.6	2.0	2.0
	44	25	60	19	18	25	28	37
W(X)	4.6-	5.8-	6.7-	7.5-	7.7-	7.5-	5.7-	5.1-
	2.9	0.0	0.0	3.0-	5.2-	3.8-	0.9-	0.1
	9.6-	11.1-	15.1-	9.8-	10.5-	11.7-	9.5-	10.2-
	2.2	2.8	3.1	2.0	1.3	1.8	2.0	2.6
W(Y)	0.8-	0.1	1.1-	3.0-	3.2-	3.5-	3.3-	4.3-
	8.9	10.5	8.0	1.3	0.1-	0.1-	1.2	1.6
	6.3-	5.5-	7.3-	5.5-	6.6-	6.6-	6.6-	7.7-
	2.3	4.0	3.5	1.7	1.5	1.7	1.6	2.0

OCTOBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	26.0	26.0	25.5	25.3	24.6	24.2	24.3	23.7
	28.7	28.7	29.0	29.0	27.0	27.0	30.0	26.0
	23.7	23.0	23.0	22.5	22.5	22.0	22.0	21.5
	0.9	1.0	1.0	1.2	0.9	1.2	1.8	1.3
	64	67	86	46	28	24	29	31
T(W)-T(A)	3 2	3 3	4 3	3 3	3 3	3 3	4 3	4 2
	1.0	0.9	0.7	0.9	1.1	1.0	0.9	0.9
	3.8	4.5	3.1	3.3	3.3	4.0	4.0	4.0
	1.5-	1.0-	2.6-	1.0-	0.0	2.0-	3.0-	2.8-
	1.2	1.2	1.0	1.1	0.7	1.5	1.8	1.6
	37	63	81	40	25	21	25	29
E(W)-E(A)	3 2	3 3	4 3	3 3	3 3	3 3	4 3	4 2
	7.2	7.6	6.8	7.5	7.1	7.8	6.8	6.5
	10.8	14.0	11.0	11.1	12.2	11.6	12.6	12.6
	2.7	1.3	1.5	3.6	3.6	3.0	0.5-	1.5-
	2.1	2.2	2.0	1.5	1.8	2.0	3.1	3.6
	34	60	79	38	23	18	23	27
EA	3 2	3 3	4 3	3 3	3 3	3 3	4 3	4 2
	26.6	26.0	25.3	24.6	24.3	22.8	23.5	22.6
	30.6	33.5	31.1	28.0	26.6	28.5	27.1	28.2
	24.2	21.8	20.0	20.3	22.3	18.3	18.1	17.5
	1.5	1.7	2.1	1.3	1.0	2.8	2.6	2.5
	34	60	79	38	23	18	23	27
C	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1
	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
	50	69	85	44	28	26	29	35
P	2 3	3 3	4 3	3 3	3 3	4 3	4 3	4 2
	14.3	15.2	15.1	15.5	15.5	16.0	16.1	15.7
	20.5	21.0	19.0	19.0	20.5	19.5	20.0	20.0
	11.2	11.7	10.6	12.5	10.5	11.5	11.7	12.7
	1.8	2.0	1.6	1.7	2.8	2.0	1.8	2.0
	64	62	81	41	23	20	22	27
W	2 3	3 3	4 3	3 3	3 3	3 3	4 3	3 2
	7.1	8.0	7.0	8.2	9.1	6.5	7.6	6.6
	13.8	13.8	14.3	17.5	14.3	13.3	12.8	12.8
	4.0	3.0	2.3	2.0	5.0	2.5	4.5	0.0
	2.2	2.2	2.5	3.0	2.2	2.7	2.5	2.3
	65	68	85	45	28	26	29	33
W(X)	6.6-	7.3-	6.1-	7.1-	8.3-	5.8-	6.0-	5.1-
	1.5-	2.6-	2.3	0.1-	3.2-	2.0-	3.3-	0.0
	13.7-	13.6-	12.3-	15.3-	14.3-	12.5-	9.7-	11.7-
	2.3	2.5	2.7	3.0	2.5	2.5	1.8	2.5
W(Y)	1.4-	2.0-	2.0-	2.2-	2.8-	2.0-	4.0-	3.5-
	4.3	7.1	7.0	9.2	3.0	3.2	1.1	0.0
	9.1-	7.0-	9.1-	8.8-	6.7-	7.3-	9.6-	8.3-
	2.2	2.3	2.6	3.0	2.0	2.5	3.0	2.2

NOVEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 3	4 3	2 3	2 3	3 3	4 3	4 2
	25.5	25.6	25.2	24.7	24.5	24.0	22.5	22.3
	31.0	28.1	27.0	27.5	27.5	25.5	24.5	25.0
	22.1	22.6	23.6	22.6	22.7	22.6	21.0	20.1
	1.2	1.0	0.7	1.0	1.1	0.8	1.0	1.2
	66	51	57	34	32	23	20	40
T(W)-T(A)	3 3	3 3	4 3	2 3	2 3	3 3	5 3	4 2
	0.6	0.6	0.4	0.8	1.0	0.9	1.0	1.0
	3.6	2.7	2.2	4.0	4.0	3.0	3.3	3.7
	4.3-	2.0-	2.5-	2.0-	1.5-	1.7-	2.3-	1.3-
	1.5	1.0	1.0	1.0	1.2	1.0	1.2	1.2
	40	47	55	34	32	23	19	40
E(W)-E(A)	3 3	3 3	4 3	2 3	2 3	3 3	5 3	4 2
	6.5	6.6	6.2	5.3	5.5	5.0	5.2	5.7
	11.0	10.5	10.0	9.0	8.6	8.3	11.1	10.0
	1.3	3.2	0.0	1.5	0.6	3.1-	0.5-	0.5-
	2.3	1.8	2.0	2.0	1.8	2.3	3.0	2.7
	39	46	55	34	32	23	19	40
EA	3 3	3 3	4 3	2 3	2 3	3 3	5 3	4 2
	26.1	25.5	24.7	25.2	25.1	24.6	22.2	21.1
	31.2	29.5	28.3	29.0	30.0	29.8	27.1	28.0
	21.7	21.0	20.0	21.6	21.7	20.1	18.2	17.1
	2.0	2.0	2.0	2.0	2.0	2.3	2.1	3.0
	39	46	55	34	32	23	19	40
C	3 3	3 3	4 3	2 3	2 3	3 3	4 3	4 2
	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.3
	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2
	52	52	58	30	31	24	21	40
P	2 3	3 3	4 3	2 3	2 3	3 3	4 3	4 2
	13.3	13.7	15.0	16.0	13.8	14.0	16.0	17.0
	16.5	17.5	18.3	20.0	17.0	19.1	20.5	22.5
	9.0	8.0	10.0	12.5	11.0	10.5	11.1	14.0
	1.6	1.7	1.7	2.0	1.5	2.6	2.2	2.1
	62	42	56	34	28	22	21	41
W	2 3	3 3	4 3	2 3	2 3	3 3	4 3	4 2
	7.0	7.3	8.3	10.1	7.0	6.0	7.8	7.3
	12.8	13.8	18.0	15.3	14.3	10.2	12.8	12.8
	2.0	1.5	1.5	3.5	3.0	3.0	3.5	4.0
	2.7	2.8	4.0	3.0	2.8	2.0	2.2	2.0
	62	52	58	35	32	24	21	38
W(X)	6.0-	5.2-	6.8-	9.6-	6.5-	5.5-	7.3-	6.5-
	3.5	4.8	2.5	3.0-	2.0-	2.8-	3.5-	3.8-
	12.9-	13.0-	13.6-	14.5-	13.5-	10.2-	12.6-	12.6-
	3.8	4.0	4.0	3.0	3.0	2.0	2.1	2.0
W(Y)	0.6-	0.9-	2.6-	1.3-	1.5-	0.6-	1.3-	2.5-
	4.0	10.5	9.5	5.1	2.0	3.0	1.2	2.0
	5.0-	8.3-	11.6-	5.3-	6.0-	6.6-	6.8-	7.0-
	2.3	4.2	4.0	2.7	2.0	2.2	2.1	2.0

DECEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 4	3 3	2 3	4 3	4 3	4 2
	24.7	25.0	25.1	24.6	24.2	23.5	22.2	21.7
	30.6	28.0	28.0	27.0	26.5	29.2	25.0	25.0
	20.5	22.0	24.0	22.0	21.5	20.7	20.0	19.2
	1.3	1.0	0.7	1.0	1.0	1.7	1.5	1.1
	78	55	54	39	33	19	27	36
T(W)-T(A)	3 3	4 3	3 3	3 3	2 3	4 3	4 3	4 2
	0.9	0.6	0.4	0.8	1.0	0.3	1.0	1.1
	3.8	5.0	3.0	3.0	4.5	3.2	2.7	3.3
	4.6-	3.0-	2.0-	2.0-	1.6-	5.0-	1.7-	1.0-
	1.5	1.5	1.0	1.3	1.3	1.6	1.1	1.1
	52	55	53	39	33	19	27	36
E(W)-E(A)	3 3	4 3	3 3	3 3	2 3	4 3	4 3	4 2
	7.0	5.7	5.2	5.6	6.5	5.2	5.7	6.5
	14.7	12.5	10.6	9.6	11.5	9.5	9.8	12.5
	2.5	0.9	0.2	2.5	2.0	1.0	0.3	0.9
	3.0	2.6	2.2	2.0	2.3	2.3	2.5	2.5
	48	53	53	35	33	19	27	36
EA	3 3	4 3	3 3	3 3	2 3	4 3	4 3	4 2
	24.3	25.2	25.5	25.3	24.0	22.3	21.1	19.8
	31.0	29.7	29.8	28.0	30.5	25.6	24.6	23.3
	17.8	18.0	22.2	23.0	18.8	18.0	18.0	15.5
	3.0	2.3	2.0	1.1	2.3	2.3	2.2	2.3
	48	53	53	35	33	19	27	36
C	3 3	4 3	4 4	3 3	2 3	4 3	4 3	4 2
	0.5	0.5	0.4	0.6	0.7	0.6	0.7	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.1
	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
	71	54	54	38	33	20	30	39
P	2 3	4 3	4 4	3 3	2 3	4 3	4 3	4 2
	11.8	11.6	13.2	14.3	14.1	17.7	17.2	18.2
	17.5	15.8	19.0	16.2	18.5	20.5	22.0	22.5
	7.0	5.6	6.0	10.5	11.1	13.5	12.5	14.7
	2.1	3.0	2.7	1.3	1.5	1.8	2.3	1.8
	77	53	52	36	30	14	29	36
W	3 3	4 3	4 4	3 3	2 3	4 3	4 3	4 2
	6.1	7.6	7.8	8.3	8.2	8.3	7.3	8.5
	12.8	16.0	16.0	12.8	13.8	11.2	17.0	15.3
	1.5	0.0	3.0	3.5	3.5	5.5	0.0	3.0
	2.6	3.7	3.0	2.3	2.6	1.5	3.0	2.5
	75	54	54	39	32	20	30	39
W(X)	2.8-	1.0-	4.5-	6.5-	7.0-	7.5-	6.6-	7.5-
	7.7	14.5	6.8	7.7	1.6	4.6-	0.0	1.6-
	12.1-	16.0-	16.0-	12.8-	13.8-	10.5-	15.8-	12.0-
	4.9	6.8	4.8	4.5	3.5	1.6	2.8	2.5
W(Y)	0.3	1.3	1.0	0.8	0.9	1.7-	1.7-	3.5-
	9.6	10.5	10.6	6.6	8.3	5.5	5.0	2.5
	8.4-	6.0-	8.0-	7.0-	6.6-	6.6-	6.0-	10.1-
	3.7	4.6	5.0	3.5	3.3	3.0	2.6	2.3

JANUARY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 3	3 2	3 3	4 3	4 3	4 2
	23.5	24.3	24.1	24.7	23.7	23.0	22.1	21.3
	27.1	27.0	27.0	35.0	34.0	25.0	26.5	24.0
	20.7	20.5	19.0	22.0	21.0	21.0	20.0	18.7
	1.1	1.2	1.2	2.6	2.6	1.5	1.6	1.3
	58	47	76	20	19	19	27	40
T(W)-T(A)	3 3	4 3	4 4	3 2	3 3	4 3	4 3	4 2
	1.3	0.9	1.0	0.2-	0.1-	0.2-	0.6	1.0
	3.6	3.1	6.0	1.6	3.0	2.1	3.3	5.0
	0.9-	2.5-	2.0-	9.0-	9.0-	3.0-	3.8-	2.0-
	1.0	1.2	1.2	2.2	2.5	1.5	1.8	1.5
	31	46	73	20	18	15	26	40
E(W)-E(A)	3 3	4 3	4 4	3 2	3 3	4 3	4 3	4 2
	7.7	6.7	6.3	5.3	5.7	5.6	6.1	6.6
	14.5	11.3	11.6	12.6	11.0	10.0	12.5	14.5
	3.0	2.0	0.1-	2.6	1.6	1.2-	0.2	1.6
	2.6	2.0	2.0	2.1	2.6	2.7	3.3	3.0
	31	46	72	20	18	15	26	40
EA	3 3	4 3	4 4	3 2	3 3	4 3	4 3	4 2
	22.7	23.6	23.8	23.6	22.0	20.5	19.7	18.7
	27.6	27.6	28.0	27.3	28.0	24.5	25.7	25.0
	13.0	18.2	18.3	17.0	17.1	17.1	13.2	11.6
	2.6	1.7	2.1	2.1	2.6	2.5	3.2	3.0
	31	46	72	20	18	15	26	40
C	2 3	3 3	4 3	3 2	3 3	4 3	4 3	4 2
	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	55	43	78	20	19	19	28	40
P	2 3	4 3	4 3	3 2	3 3	4 3	4 3	4 2
	12.8	12.7	12.0	13.5	16.0	14.0	16.7	17.2
	18.0	19.0	19.1	18.1	20.0	18.0	24.0	25.5
	5.6	5.0	7.6	10.7	12.0	6.2	7.0	12.5
	3.5	3.8	2.5	1.5	2.6	3.0	3.7	3.3
	58	46	79	20	19	17	28	39
W	2 3	4 3	4 3	3 2	3 3	4 3	4 3	4 2
	5.3	7.1	6.7	6.5	6.5	5.3	8.1	8.0
	10.2	13.8	13.8	11.7	11.2	9.2	13.8	12.8
	0.0	0.0	0.3	2.0	3.5	0.0	5.0	3.5
	2.5	3.3	3.1	2.3	2.1	2.2	2.5	2.2
	49	47	80	20	19	19	28	40
W(X)	3.0-	4.6-	4.0-	4.6-	5.2-	2.5-	7.0-	6.6-
	10.2	5.3	5.8	0.6-	1.7-	8.1	0.1-	1.1-
	8.8-	12.3-	13.6-	9.1-	8.5-	9.0-	13.8-	10.1-
	3.8	4.0	4.2	3.0	1.7	4.1	3.0	2.3
W(Y)	2.7-	0.6	1.8	1.6	2.2-	0.1	1.0-	3.1-
	2.3	12.0	12.1	8.2	4.7	6.8	7.7	1.6
	7.1-	8.5-	10.2-	7.6-	7.7-	3.2-	8.3-	9.8-
	2.2	5.0	4.1	3.7	3.5	3.0	3.5	3.2

FEBRUARY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	23.0	22.6	23.0	22.7	22.1	22.1	21.8	21.1
	27.6	28.5	26.5	24.5	25.0	26.0	26.0	24.7
	20.5	20.0	20.0	20.5	20.5	20.0	19.2	18.7
	1.0	1.6	1.2	1.0	1.0	1.1	1.3	1.2
	58	32	44	29	22	27	23	26
T(W)-T(A)	3 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	1.6	2.0	1.1	0.7	1.0	0.6	0.9	0.9
	3.7	4.5	4.5	4.1	3.0	3.0	3.3	3.3
	1.0-	3.5-	2.0-	1.0-	2.7-	2.1-	3.0-	3.1-
	1.0	1.5	1.2	1.1	1.5	1.2	1.6	1.5
	34	32	44	29	22	26	22	26
E(W)-E(A)	3 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	9.5	9.7	8.6	6.0	6.1	3.8	4.8	5.8
	17.5	16.0	13.0	11.3	10.0	8.5	10.0	10.0
	2.0	4.0	3.6	3.0	2.1	1.0-	2.2-	1.5
	3.2	2.8	2.2	2.3	2.0	2.3	2.6	2.0
	34	32	44	25	22	26	22	26
EA	3 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	19.7	19.2	20.0	21.2	20.5	22.2	21.1	19.0
	26.5	25.7	25.7	24.5	23.6	25.0	24.8	23.3
	14.2	14.5	15.8	16.5	16.5	18.5	15.8	16.1
	2.8	3.0	2.1	2.1	2.0	1.2	2.0	1.7
	34	32	44	25	22	26	22	26
C	2 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	0.5	0.5	0.4	0.7	0.6	0.8	0.8	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	54	30	44	29	22	27	23	27
P	2 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	15.0	15.0	15.0	15.1	13.0	13.5	14.7	15.8
	19.1	18.1	23.0	19.1	15.7	19.0	18.5	19.1
	12.5	11.1	11.0	8.5	9.0	9.0	11.7	11.7
	1.6	1.8	2.1	2.1	1.8	2.5	1.8	2.0
	58	32	44	29	22	27	22	25
W	3 3	4 3	3 3	3 3	3 3	3 3	4 3	4 2
	8.0	8.1	7.0	7.6	5.6	7.0	7.8	8.5
	11.2	11.2	15.3	14.0	10.2	12.8	10.7	12.8
	5.0	3.0	0.8	0.0	1.0	1.5	2.5	4.0
	1.5	2.2	3.6	3.3	2.5	3.0	2.5	2.8
	47	32	43	29	21	26	23	27
W(X)	6.7-	6.1-	4.8-	3.6-	1.7-	4.2-	6.8-	7.7-
	4.0	1.8	0.1	4.0	3.3	6.7	0.1-	3.8-
	10.6-	11.0-	14.5-	11.0-	9.5-	11.0-	10.6-	12.0-
	2.5	2.7	4.1	4.6	3.8	5.3	3.0	2.8
W(Y)	3.4-	4.5-	3.6-	4.5-	3.3-	0.2	1.0	0.7-
	1.4	0.1-	4.0	4.5	1.6	8.1	10.7	8.1
	10.6-	10.0-	12.8-	10.5-	8.6-	6.0-	2.6-	6.6-
	2.5	2.2	2.7	3.7	3.0	3.2	3.2	3.2

MARCH 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	23.3	23.0	23.3	23.1	22.6	22.5	21.5	21.0
	27.2	25.5	27.1	30.0	25.1	27.0	26.5	24.2
	20.5	16.0	21.0	21.0	21.0	20.0	19.0	18.7
	1.1	1.5	1.0	1.5	1.0	1.5	1.5	1.2
	67	47	71	33	35	31	43	48
T(W)-T(A)	4 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	0.9	1.0	0.7	0.3	0.5	0.3	0.6	1.0
	3.7	4.5	3.2	2.1	2.1	2.0	2.7	4.0
	4.0-	1.8-	2.8-	6.2-	2.C-	3.2-	3.8-	2.1-
	1.5	1.3	1.3	1.5	1.0	1.2	1.5	1.0
	41	45	66	32	33	28	39	46
E(W)-E(A)	4 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	8.0	7.5	7.2	6.5	6.0	4.7	6.3	6.6
	13.8	14.0	11.1	10.3	13.0	8.5	12.0	11.6
	1.0	2.1	0.3-	1.3	2.1	0.9	0.1	2.3
	2.6	2.3	2.1	2.1	2.5	2.1	2.6	2.1
	41	45	62	32	33	28	39	46
EA	4 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	20.8	20.6	21.0	20.7	20.8	21.2	18.5	18.0
	25.7	26.3	25.7	25.3	25.1	26.5	26.5	22.5
	13.6	13.6	16.5	17.7	14.6	16.5	13.0	13.2
	2.5	2.1	1.7	2.0	2.2	2.1	2.7	2.0
	41	45	62	32	33	28	39	46
C	3 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	0.4	0.4	0.5	0.6	0.5	0.6	0.6	0.8
	1.0	1.0	1.0	1.0	1.C	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	61	47	71	33	35	31	43	47
P	3 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	15.1	15.5	15.6	14.6	15.5	15.7	17.2	17.1
	21.0	19.0	20.7	17.5	18.5	20.0	21.5	22.5
	9.6	9.6	10.6	11.8	9.6	10.6	12.7	10.6
	2.2	2.2	2.0	1.5	2.0	2.2	2.0	2.2
	67	45	69	32	33	28	39	46
W	3 3	4 3	4 3	3 3	3 3	4 3	4 3	3 2
	6.0	6.2	5.5	5.5	5.8	6.1	5.7	7.0
	10.7	12.8	13.8	11.7	10.2	12.8	13.8	15.3
	1.0	1.0	0.5	0.5	0.5	1.0	1.0	1.5
	2.6	3.5	3.0	2.8	3.0	3.0	2.3	2.5
	64	43	68	32	34	31	43	48
W(X)	4.0-	3.2-	3.2-	3.1-	4.2-	4.3-	4.6-	5.7-
	7.6	5.5	5.0	5.6	6.C	5.0	3.8	0.1
	9.6-	11.1-	8.8-	10.1-	10.2-	11.1-	10.5-	13.2-
	3.7	4.5	2.7	3.2	4.0	4.0	2.8	2.5
W(Y)	1.5-	2.1-	2.0-	2.3-	0.0	1.5	1.0-	3.0-
	7.7	5.0	8.0	3.0	8.0	9.5	6.0	3.7
	8.7-	12.0-	12.0-	8.6-	7.0-	5.0-	9.0-	9.2-
	3.3	3.7	4.1	3.6	2.8	3.2	2.7	2.5

APRIL 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	24.0	23.5	24.3	23.8	23.2	22.7	21.6	21.0
	29.2	26.0	30.0	29.0	27.C	27.6	26.0	26.5
	21.0	22.0	21.0	20.5	19.2	20.0	18.0	17.6
	1.3	1.0	1.5	1.5	1.7	2.0	1.5	1.6
	56	27	53	33	25	31	42	50
T(W)-T(A)	3 3	4 3	4 3	3 3	3 3	4 3	4 3	4 2
	0.4	0.7	0.8	0.4	0.8	0.2	0.5	0.8
	2.8	4.0	5.0	4.5	5.0	4.2	4.3	4.3
	3.2-	2.7-	3.0-	3.0-	4.3-	5.5-	2.7-	4.5-
	1.5	1.5	1.5	1.5	2.0	2.0	1.5	1.7
	30	25	49	30	22	27	38	45
E(W)-E(A)	3 3	4 3	4 3	3 3	3 3	4 3	4 3	4 2
	5.6	5.5	6.3	4.3	5.1	5.8	5.5	5.6
	10.0	10.7	17.2	8.0	8.7	15.5	10.3	10.3
	1.3-	0.7-	1.2	0.4-	1.2	1.5-	1.1-	1.5
	2.8	2.6	3.5	1.7	1.5	4.0	2.8	2.2
	30	25	49	30	22	27	38	45
EA	3 3	4 3	4 3	3 3	3 3	4 3	4 3	4 2
	22.8	23.0	23.1	23.7	22.6	20.2	19.6	19.0
	33.0	29.1	26.3	28.5	25.0	29.1	25.5	23.6
	15.8	19.1	13.3	20.8	20.7	12.0	15.8	14.5
	3.3	2.0	2.6	1.3	1.1	3.3	2.7	2.1
	30	25	49	30	22	27	38	45
C	2 3	4 3	4 3	3 3	3 3	4 3	4 3	4 2
	0.5	0.4	0.6	0.6	0.6	0.7	0.7	0.8
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.0	0.1	0.3	0.0	0.1	0.3
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
	49	27	53	33	24	31	42	49
P	2 3	4 3	4 3	3 3	3 3	4 3	4 3	4 2
	14.5	15.0	14.5	15.5	18.2	18.5	18.5	17.8
	18.0	20.0	20.0	20.0	22.0	23.2	22.5	21.0
	10.5	11.1	7.5	10.5	12.7	12.7	14.5	15.0
	1.6	2.0	2.2	2.7	2.3	2.5	2.2	1.6
	51	25	50	30	22	29	37	46
W	2 3	4 3	4 3	3 3	3 3	4 3	4 3	4 3
	6.0	5.8	6.3	6.7	8.5	7.1	7.0	6.5
	11.7	11.2	12.0	10.6	12.8	13.8	12.8	11.2
	1.5	0.5	0.0	1.1	3.0	1.0	2.0	2.0
	2.3	3.0	3.5	2.2	1.8	3.2	2.6	2.2
	51	26	53	33	25	32	42	50
W(X)	3.8-	4.5-	4.5-	4.0-	7.5-	6.5-	5.7-	4.8-
	2.9	4.0	4.7	8.0	1.7-	0.8-	1.2-	2.0
	11.1-	10.5-	11.0-	10.1-	11.0-	13.0-	11.0-	9.7-
	3.4	3.7	4.5	4.5	2.0	3.3	2.5	2.5
W(Y)	1.4-	0.5-	0.5-	0.1	1.8-	1.0-	1.6-	2.5-
	11.6	7.5	8.5	7.5	5.2	4.3	4.3	6.5
	7.7-	4.1-	6.7-	5.1-	8.6-	6.6-	9.1-	9.6-
	3.9	3.1	3.3	3.8	3.0	2.7	3.5	3.3

LATITUDE 15° - 20° N.

MAY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	25.5	26.2	25.2	23.7	23.5	22.0	21.2	20.8
	30.0	30.5	30.0	26.5	26.5	28.7	25.5	25.5
	22.0	23.7	22.7	22.0	22.0	20.0	19.2	18.7
	1.3	1.5	1.0	1.0	1.0	1.6	1.3	1.3
	57	24	48	23	20	30	34	56
T(W)-T(A)	3 2	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	0.9	0.5-	0.6	1.0	0.9	1.3	1.5	1.0
	4.5	2.1	3.0	3.0	3.8	4.5	3.1	4.5
	3.3-	4.0-	4.0-	0.6-	2.7-	4.5-	2.2-	3.8-
	2.0	1.7	1.2	1.0	1.3	1.6	1.1	1.5
	29	24	47	23	20	30	34	56
E(W)-E(A)	3 2	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	5.6	2.0	6.3	6.5	6.0	6.3	6.3	6.5
	12.6	8.5	15.5	10.6	13.5	10.3	10.5	9.8
	3.5-	4.7-	1.2-	2.7	0.1	2.0	3.0	2.2
	4.2	3.3	3.2	2.0	2.8	2.1	1.8	1.8
	29	24	46	23	20	30	34	56
EA	3 2	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	27.0	29.2	25.0	23.0	22.8	21.0	19.5	18.2
	37.0	37.0	33.1	28.7	27.5	26.0	24.5	22.6
	20.0	23.0	17.0	19.1	19.0	17.7	16.1	15.0
	4.1	3.6	3.0	1.8	2.2	2.0	2.1	1.8
	29	24	46	23	20	30	34	56
C	2 3	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	0.5	0.6	0.6	0.6	0.6	0.7	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.1	0.1	0.3	0.1	0.3	0.3	0.1
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
	47	26	48	22	20	30	34	55
P	2 3	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	13.3	13.7	14.2	15.7	17.5	18.0	19.0	18.7
	18.5	18.5	17.5	18.5	21.0	22.5	24.0	23.2
	8.5	9.5	8.2	13.5	13.0	13.5	15.7	15.5
	2.3	2.6	2.0	1.5	1.6	2.0	1.8	1.6
	51	23	47	20	20	28	33	52
W	2 3	4 3	4 3	3 3	3 3	4 2	4 3	4 3
	5.3	5.6	7.1	8.0	7.7	8.0	8.1	8.1
	10.2	11.7	12.3	11.7	11.7	12.3	12.8	12.8
	1.0	1.5	0.0	4.0	4.0	1.0	5.0	2.0
	2.1	2.5	2.6	2.0	2.2	2.3	1.7	2.3
	55	26	48	23	20	29	34	56
W(X)	4.4-	4.6-	6.3-	7.2-	7.0-	7.5-	7.3-	6.7-
	5.1	1.0	0.0	1.3-	3.8-	0.7-	3.8-	0.1
	10.3-	9.7-	11.6-	11.3-	11.0-	12.3-	12.8-	12.8-
	3.1	2.5	2.6	2.2	2.0	2.5	2.1	3.1
W(Y)	1.0-	0.3	0.3	1.5-	2.3-	1.5-	2.5-	3.3-
	4.0	9.0	7.0	2.5	0.8	1.7	1.2	0.8
	5.3-	5.0-	8.6-	6.3-	5.7-	6.6-	7.1-	10.6-
	2.1	3.2	3.3	2.5	2.2	2.2	2.1	2.3

JUNE 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	26.1	26.6	25.3	24.7	23.3	22.6	22.1	21.5
	32.6	31.0	30.0	29.0	25.0	27.0	27.6	29.2
	24.0	23.5	23.0	23.0	22.0	21.0	19.2	18.6
	1.5	1.8	1.2	1.5	0.8	1.6	1.8	2.0
	57	41	43	35	26	25	35	46
T(W)-T(A)	3 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	0.2	0.0	0.7	0.1-	0.4	0.1	0.6	0.7
	3.0	3.0	3.0	2.0	2.0	2.7	3.2	4.3
	5.0-	7.0-	7.0-	5.0-	2.2-	4.3-	5.5-	6.0-
	1.7	2.2	1.5	1.3	1.C	1.7	2.0	2.0
	30	41	40	31	26	25	35	46
E(W)-E(A)	3 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	6.3	7.0	7.2	6.1	6.1	4.7	6.5	6.5
	8.7	13.3	10.6	10.8	9.0	7.0	10.5	12.5
	1.3	0.7	C.7	1.0	2.5	2.0	2.1	0.2-
	1.3	2.2	2.2	2.3	1.6	1.5	1.8	2.2
	30	41	38	31	26	25	35	46
EA	3 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	26.5	26.0	24.2	22.7	21.5	21.2	19.5	18.6
	30.5	30.2	30.3	29.5	24.5	23.6	22.7	26.8
	24.2	22.0	22.0	18.7	19.1	18.5	16.1	14.1
	1.5	1.8	1.6	2.3	1.6	1.3	1.7	2.1
	30	41	38	31	26	25	35	46
C	2 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	0.5	0.6	0.5	0.5	0.7	0.7	0.8	0.8
	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0
	0.0	0.1	0.1	0.1	0.3	0.0	0.3	0.0
	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3
	54	41	44	35	27	25	35	45
P	2 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	14.7	16.5	16.6	17.3	18.0	18.0	18.0	17.5
	18.5	20.5	20.0	20.5	20.5	20.0	21.5	21.1
	0.4-	14.0	13.0	14.0	15.1	15.5	14.7	15.0
	3.6	1.5	1.7	1.5	1.5	1.2	1.2	1.1
	57	41	42	35	26	23	33	42
W	2 3	4 3	4 3	3 3	4 3	4 3	4 3	4 2
	7.8	6.3	8.1	9.0	9.1	7.8	7.7	7.7
	13.3	9.2	15.3	11.7	12.2	12.8	13.8	11.7
	4.0	3.5	2.5	5.0	7.1	4.0	4.0	2.5
	1.6	1.5	3.0	1.3	1.3	2.2	2.3	2.2
	57	41	43	35	27	25	35	45
W(X)	7.6-	6.0-	7.6-	7.7-	8.7-	7.2-	6.5-	6.2-
	4.1-	3.5-	2.5-	4.3-	6.6-	4.0-	1.3-	1.6-
	13.2-	9.2-	13.2-	10.8-	12.1-	12.0-	13.0-	11.0-
	1.6	1.5	2.8	1.5	1.5	2.0	2.5	2.3
W(Y)	0.0	1.1-	2.0-	2.2-	1.8-	2.3-	4.0-	4.0-
	4.8	3.5	3.3	9.0	3.5	0.0	1.5-	0.1-
	3.6-	3.8-	7.7-	8.6-	5.5-	5.2-	8.3-	7.3-
	2.2	1.7	2.2	4.0	1.8	1.5	1.6	1.8

LATITUDE 10° – 15° N.

JULY 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 1 27.6 1	4 3 25.6 26.0 25.5 0.2 5	5 2 25.6 26.5 24.7 0.6 7	4 4 26.1 27.5 25.1 0.8 8	4 4 25.7 27.5 25.0 0.7 16	3 4 26.7 28.7 25.5 4	4 2 25.0 26.0 23.7 1.0 5	3 3 25.6 28.0 23.1 1.2 21
T(W)-T(A)	1 1 0.0 1	4 3 1.7 2.1 1.5 0.2 5	5 2 0.6 1.5 0.0 0.5 7	4 4 0.3 1.0 1.0- 0.8 8	4 4 0.3 1.1 0.9- 0.5 16	3 4 0.6 2.6 1.6- 4	4 2 1.7 3.8 0.0 1.2 5	3 3 1.1 3.8 2.0- 1.5 21
E(W)-E(A)	1 1 5.0 1	4 3 6.3 10.2 3.5 2.3 5	5 2 4.6 7.5 1.5 1.8 7	4 4 5.2 8.8 2.5 2.1 8	4 4 6.0 9.5 3.6 1.7 16	3 4 7.5 9.0 6.1 4	4 2 4.7 9.5 2.5 2.5 5	3 3 6.0 13.3 1.6- 3.8 19
EA	1 1 29.7 1	4 3 28.1 31.2 24.2 2.2 5	5 2 27.5 29.7 25.8 1.2 7	4 4 27.1 29.2 24.7 1.7 8	4 4 25.6 27.2 22.1 1.3 16	3 4 26.7 27.7 26.0 4	4 2 28.5 31.0 25.3 2.1 5	3 3 27.1 32.1 22.2 2.7 19
C	1 1 0.5 1	4 3 0.5 0.9 0.1 0.3 5	5 2 0.5 0.8 0.3 0.2 7	4 4 0.6 0.9 0.1 0.2 8	4 4 0.5 1.0 0.3 0.2 17	3 4 0.4 0.8 0.1 4	4 2 0.8 1.0 0.3 0.3 5	3 3 0.6 1.0 0.1 0.3 20
P	1 1 10.6 1	4 4 12.2 13.5 10.6 3	5 2 12.6 13.5 11.7 0.7 5	5 4 14.1 15.0 13.0 0.8 5	4 4 11.7 14.8 9.0 1.6 17	3 4 10.5 11.5 9.6 4	4 2 13.1 15.0 11.5 1.3 5	3 3 12.0 14.7 9.5 1.3 21
W	1 1 8.1 1	4 3 11.5 14.3 10.2 1.5 5	5 2 8.2 12.3 5.0 2.3 7	4 4 7.6 10.2 5.6 1.6 8	4 4 8.0 10.2 6.1 1.2 17	3 4 7.6 9.2 7.1 4	4 2 7.5 10.7 4.5 2.0 5	3 3 6.5 11.2 1.5 2.5 21
W(X)	6.2-	9.7- 8.1- 11.0- 0.9	8.0- 5.0- 11.5- 2.1	7.0- 5.5- 9.5- 1.3	7.2- 5.7- 9.7- 1.0	6.0- 5.8- 6.1-	7.0- 4.0- 8.1- 1.5	5.0- 0.9 8.6- 2.5
W(Y)	5.2-	6.0- 3.5- 9.3- 2.1	2.0- 0.4 4.2- 1.6	2.7- 0.0 4.6- 1.5	2.2- 1.0 7.8- 2.5	4.5- 3.6- 7.0-	1.8- 0.1- 7.0- 2.6	3.5- 0.0 7.8- 2.5

AUGUST 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 2 28.0 28.0 28.0 3	3 2 27.2 31.0 26.0 1.5 10	4 3 26.6 30.5 25.6 1.1 15	4 3 27.0 27.1 27.0 3	3 2 26.1 30.0 24.0 1.7 11	3 3 26.5 29.0 24.2 1.0 19	2 3 27.1 29.0 25.0 1.3 14	2 3 26.1 27.0 25.0 0.7 7
T(W)-T(A)	0	3 2 0.9 2.1 0.1- 0.7 9	4 3 0.6 2.1 1.6- 0.9 15	4 3 0.0 0.0 0.1- 3	3 2 0.5 3.1 3.3- 1.7 11	3 3 0.6 2.2 2.1- 1.1 17	2 3 0.6 2.0 1.0- 1.0 14	2 3 0.7 2.0 0.5- 0.8 7
E(W)-E(A)	0	3 2 6.3 9.5 5.0 1.2 9	4 3 5.6 9.1 3.0 1.3 15	4 3 4.5 5.7 3.1 3	3 2 3.8 7.0 4.2- 3.5 11	3 3 5.0 9.5 2.0- 2.6 17	2 3 4.1 8.0 4.5- 3.2 14	2 3 3.1 5.7 1.5- 2.3 7
EA	0	3 2 28.7 31.5 25.5 1.5 9	4 3 28.3 32.0 25.5 1.7 15	4 3 29.0 30.2 27.7 3	3 2 29.0 37.7 25.0 3.6 11	3 3 26.5 35.5 24.2 2.5 17	2 3 30.8 40.0 24.3 3.5 14	2 3 30.0 32.2 27.7 1.5 7
C	4 2 0.2 0.4 0.1 3	3 2 0.6 1.0 0.1 0.3 10	4 3 0.7 1.0 0.3 0.2 15	4 3 0.6 0.9 0.4 3	3 2 0.6 1.0 0.1 0.3 11	3 3 0.6 1.0 0.4 0.2 20	2 3 0.7 1.0 0.3 0.2 14	2 3 0.7 0.9 0.0 0.3 7
P	4 2 10.8 13.0 8.6 3	3 2 9.5 11.5 7.0 1.5 10	4 3 11.7 16.5 9.6 1.5 15	4 3 10.5 11.6 8.1 3	3 2 11.7 14.0 9.6 1.0 11	3 3 11.5 14.5 9.5 1.5 20	2 3 10.5 13.0 8.5 1.3 14	2 3 11.0 13.7 8.5 2.0 7
W	4 2 6.0 7.6 4.0 3	3 2 5.7 7.6 0.5 2.0 10	4 3 7.8 10.5 5.0 1.6 15	4 3 8.0 8.1 7.6 3	3 2 8.1 9.2 6.1 0.8 11	3 3 7.3 11.2 0.0 2.6 18	2 3 6.0 8.7 0.0 2.6 12	2 3 6.3 8.1 2.0 2.3 7
W(X)	6.0- 4.0- 7.6-	5.5- 0.0 7.6- 2.0	7.6- 4.7- 10.5- 1.6	6.3- 5.8- 7.0-	6.5- 4.2- 8.7- 1.2	5.5- 0.0 10.5- 2.6	4.3- 0.0 6.6- 2.3	5.0- 1.8- 8.1- 2.1
W(Y)	0.1- 0.0 0.1-	0.9- 0.5 5.0- 1.5	1.0- 1.6 5.1- 1.5	4.7- 4.1- 5.2-	4.6- 0.1- 7.5- 1.6	4.5- 0.0 8.0- 2.2	3.6- 0.0 8.1- 2.1	1.5- 0.0 4.1- 1.5

SEPTEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3 26.8 28.1 25.0 0.9 13	3 3 26.3 28.1 25.0 0.7 13	4 3 26.2 30.0 25.0 1.0 19	3 4 26.5 29.0 24.0 1.5 6	3 3 27.1 32.0 24.0 1.7 12	3 3 26.7 28.0 26.0 0.8 7	4 2 26.7 28.5 24.0 1.5 6	3 2 26.8 30.5 25.0 1.2 18
T(W)-T(A)	4 3 1.5 3.2 0.2- 1.0 13	3 3 1.5 4.3 0.1 1.3 13	4 3 1.5 2.6 2.8- 1.2 19	3 4 1.0 4.0 1.0- 1.5 6	3 3 0.7 4.1 5.0- 2.0 12	3 3 1.0 2.2 0.0 0.8 7	3 2 0.8 2.0 0.0 0.7 5	3 2 0.4 2.1 3.3- 1.2 13
E(W)-E(A)	4 3 7.2 9.1 4.5 1.5 13	3 3 7.3 10.3 3.0 2.0 13	4 3 7.2 11.2 1.1 2.5 19	3 4 6.3 8.2 4.0 1.5 6	3 3 5.8 8.8 1.2 2.0 12	3 3 6.6 10.5 2.5 3.0 7	3 2 8.0 11.2 4.5 2.5 5	3 2 7.8 11.3 3.2 2.2 13
EA	4 3 29.2 31.0 26.7 1.2 13	3 3 28.0 31.8 26.1 1.5 13	4 3 27.7 34.7 25.2 2.1 19	3 4 28.2 31.5 26.0 2.0 6	3 3 29.5 32.1 27.0 1.3 12	3 3 28.5 31.0 26.0 1.6 7	3 2 28.0 31.0 22.3 3.0 5	3 2 26.6 30.5 23.5 1.7 13
C	4 3 0.5 0.9 0.3 0.2 13	4 3 0.6 1.0 0.1 0.3 14	4 3 0.6 0.9 0.1 0.2 19	3 4 0.6 0.9 0.1 0.3 6	3 3 0.4 0.9 0.1 0.3 11	3 3 0.3 0.5 0.0 0.2 7	3 3 0.4 0.6 0.3 0.2 7	3 2 0.5 0.9 0.0 0.3 18
P	4 3 12.2 14.5 11.0 0.9 13	4 3 11.6 13.5 9.6 1.1 13	4 3 11.7 13.5 9.6 0.9 15	3 4 11.2 12.5 10.5 3	3 3 12.5 14.5 10.5 1.0 11	2 4 12.5 14.5 10.5 1.3 5	3 3 12.0 13.0 10.5 0.9 7	3 2 10.6 13.0 8.5 1.3 18
W	4 3 7.7 9.5 5.0 1.3 13	4 3 7.1 10.2 4.5 1.7 14	4 3 7.0 11.2 5.0 2.0 19	3 4 5.0 5.0 5.0 0.0 6	3 3 5.2 7.6 3.0 1.2 12	3 3 4.0 5.0 2.0 1.1 7	3 3 3.8 9.2 0.0 3.5 7	3 2 5.5 10.7 1.5 3.0 17
W(X)	7.2- 2.5- 9.5- 1.8	6.5- 0.8- 10.2- 2.3	6.3- 3.8- 10.7- 2.0	4.8- 4.7- 5.0- 0.1	3.3- 1.6- 5.8- 1.6	2.5- 1.2- 3.8- 0.9	3.1- 0.0 8.6- 3.5	3.2- 2.3 10.7- 3.7
W(Y)	1.7- 1.0 4.5- 1.7	1.5- 2.6 4.5- 1.7	2.0- 1.6 5.6- 2.0	1.2- 0.0 1.7- 0.7	3.5- 0.0 5.7- 1.7	3.0- 1.0- 4.8- 1.3	1.0- 3.0 3.1- 2.0	3.0- 0.0 7.5- 2.2

OCTOBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3 27.2 29.2 26.2 0.8 13	2 2 27.0 28.7 25.0 1.1 10	4 3 26.5 29.7 24.2 1.1 18	3 3 26.6 28.1 25.0 1.0 7	4 3 25.0 27.6 21.0 2.1 5	5 3 28.0 33.0 26.0 4	4 3 26.0 29.0 24.0 1.1 10	3 3 26.0 36.0 16.5 4.2 11
T(W)-T(A)	4 3 1.0 3.1 1.0- 1.0 13	2 2 1.0 3.2 0.6- 1.0 10	4 3 0.8 3.6 2.0- 1.3 18	3 3 0.3 1.5 1.0- 0.9 6	5 4 1.1 2.2 0.0 2	5 3 0.1 2.0 4.0- 4	4 3 1.3 3.0 0.0 1.0 10	3 3 1.0 4.0 7.0- 2.8 11
E(W)-E(A)	4 3 8.2 16.2 5.3 2.5 13	2 2 6.5 11.0 4.0 1.8 10	4 3 5.5 8.7 4.5- 2.7 18	2 5 6.5 7.0 6.0 2	5 2 8.7 1	5 3 7.0 9.8 4.7 4	4 3 7.5 10.0 6.0 1.1 10	3 3 7.5 10.3 5.3 1.7 11
EA	4 3 28.0 30.5 22.0 2.0 13	2 2 29.3 31.8 25.0 1.8 10	4 3 28.7 39.5 25.2 3.0 18	2 5 28.1 28.3 28.0 2	5 2 31.0 1	5 3 28.8 31.5 27.7 4	4 3 27.0 31.5 22.7 2.8 10	3 3 26.5 32.2 11.0 5.2 11
C	4 3 0.7 1.0 0.1 0.3 13	2 2 0.8 1.0 0.1 0.3 10	4 3 0.6 1.0 0.1 0.3 18	3 3 0.7 1.0 0.3 0.3 7	4 3 0.6 1.0 0.3 0.3 5	5 3 0.5 0.6 0.5 4	4 3 0.6 1.0 0.4 0.2 10	3 3 0.5 1.0 0.0 0.3 11
P	4 3 12.2 14.0 7.6 1.6 11	2 1 11.5 13.7 9.6 1.5 9	4 3 11.6 14.0 8.7 1.6 18	3 3 12.2 13.5 9.0 1.3 7	4 3 13.8 16.0 12.1 1.3 5	5 3 12.3 14.5 11.0 4	4 3 12.5 13.7 11.0 0.8 10	3 3 12.0 18.0 7.6 2.5 11
W	4 3 6.7 12.8 2.0 2.7 13	2 2 7.0 9.2 4.0 1.5 10	4 3 8.0 11.2 2.5 2.2 18	3 3 8.0 10.7 5.0 1.7 7	4 3 6.0 8.5 2.0 2.5 5	5 3 6.2 12.8 4.0 4	4 3 7.0 10.7 3.0 2.5 10	3 3 6.6 10.7 2.5 2.8 11
W(X)	6.3- 1.8 12.6- 3.3	4.5- 7.6 8.6- 4.2	6.8- 1.7- 10.1- 2.2	7.0- 4.7- 8.1- 1.0	4.2- 2.0 7.3- 3.5	4.3- 3.0- 8.1-	5.6- 2.6- 9.5- 2.1	3.2- 4.3 9.2- 5.0
W(Y)	0.7- 0.8 2.5- 1.0	1.3- 3.5 5.6- 3.1	2.5- 4.7 7.8- 3.2	4.0- 1.7- 7.0- 1.8	3.0- 0.0 4.3- 1.5	4.5- 2.6- 9.8-	3.2- 0.0 7.7- 2.6	2.8- 2.5 6.6- 2.8

LATITUDE 10° – 15° N.

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	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 3	3 3	4 2	4 3	3 3	2 3	4 3
	27.1	26.6	26.3	27.6	26.5	26.7	27.0	26.2
	29.0	28.0	28.1	31.0	29.5	32.0	31.0	30.0
	26.0	26.0	23.5	26.0	24.0	24.0	25.0	24.2
	0.8	0.6	1.0	1.6	1.7	2.0	1.7	1.5
	11	10	17	10	13	12	13	12
T(W)-T(A)	4 3	3 3	3 3	4 3	4 4	3 3	3 3	4 2
	0.0	0.7	1.0	0.1-	1.1	0.2	0.2	1.5
	1.0	1.6	4.0	1.0	3.0	2.1	3.0	2.7
	1.0-	0.0	0.6-	2.0-	2.0-	6.0-	4.0-	0.0
	0.6	0.6	1.0	1.0	1.5	2.5	1.6	0.8
	11	10	16	8	9	10	10	9
E(W)-E(A)	5 4	2 2	3 3	4 2	4 4	3 3	3 3	4 2
	6.8	7.3	6.5	5.5	5.2	3.5	4.6	7.0
	8.1	8.5	8.8	8.7	8.5	8.3	7.2	11.5
	5.0	6.0	2.5	4.8	2.0	3.3-	2.7	4.0
	1.1		1.6	1.3	1.8	3.5	1.2	2.5
	6	4	10	6	9	10	10	9
EA	5 4	2 2	3 3	4 2	4 4	3 3	3 3	4 2
	26.6	27.8	28.0	29.0	28.8	29.5	28.6	26.5
	28.5	28.7	31.0	31.0	32.0	35.3	31.6	31.0
	25.2	27.0	26.0	28.5	25.0	26.5	24.6	22.0
	1.1		1.2	0.9	2.2	3.0	1.8	2.6
	6	4	10	6	9	10	10	9
C	4 3	3 3	3 3	4 2	4 3	3 3	2 3	4 3
	0.4	0.7	0.8	0.6	0.7	0.6	0.6	0.7
	0.6	1.0	1.0	0.9	1.0	1.0	1.0	1.0
	0.1	0.0	0.3	0.3	0.0	0.3	0.3	0.4
	0.1	0.3	0.3	0.2	0.3	0.3	0.2	0.2
	11	10	17	10	15	12	13	12
P	4 3	3 3	3 3	4 2	4 3	3 3	2 3	4 3
	12.6	12.2	12.1	12.0	13.1	12.5	12.5	12.3
	13.6	14.5	15.0	14.1	16.0	16.0	15.5	15.0
	11.6	9.0	9.0	8.6	8.6	10.0	9.5	10.0
	0.7	1.5	1.6	1.7	1.8	1.6	1.5	1.5
	11	9	11	10	15	12	13	12
W	4 3	3 3	3 3	4 2	4 3	3 3	2 3	4 2
	7.8	7.3	8.0	7.2	7.5	4.1	5.6	7.1
	10.2	12.3	12.8	14.3	11.2	5.6	10.2	11.2
	5.0	4.5	6.0	1.5	5.0	1.5	1.5	1.0
	1.6	2.1	1.5	4.0	1.6	1.3	2.5	3.5
	11	10	17	10	14	9	12	11
W(X)	7.6-	7.0-	7.5-	5.0-	6.0-	3.5-	4.5-	5.0-
	5.0-	3.6-	4.2-	1.0	3.3-	1.5-	1.5	1.7
	9.6-	11.5-	12.6-	13.5-	11.0-	5.5-	7.7-	9.7-
	1.5	2.1	1.6	4.5	2.0	1.1	2.5	3.2
W(Y)	0.6	1.5-	2.5-	3.6-	3.6-	0.9-	1.3-	4.6-
	3.3	1.2	0.1-	0.1-	0.1-	3.8	4.0	0.8-
	1.6-	4.2-	5.1-	8.1-	9.6-	4.3-	6.6-	8.6-
	1.6	1.6	1.2	3.1	2.3	2.1	3.0	2.2

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	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	26.5	26.6	25.8	25.0	25.6	25.3	26.0	25.5
	27.6	27.7	28.1	26.0	32.0	31.0	34.0	28.7
	25.2	26.0	24.6	24.0	23.0	21.0	23.7	20.6
		0.6	1.0	0.7	2.3	2.0	2.5	2.0
	2	5	17	14	12	18	16	19
T(W)-T(A)	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	0.1	0.4	0.8	1.0	0.8	1.0	0.5	0.7
	1.2	1.0	3.7	2.5	2.0	4.5	2.6	5.2
	1.0-	0.8-	1.8-	0.0	2.7-	1.6-	7.0-	2.7-
		0.7	1.2	0.7	1.3	1.1	2.1	1.5
	2	5	17	14	12	18	16	19
E(W)-E(A)	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	6.2	4.1	5.8	5.5	6.2	5.8	4.1	4.1
	7.6	6.1	10.0	8.6	11.2	10.5	8.8	11.1
	4.6	2.5	4.7-	2.5	3.7	2.3	1.3-	3.0-
		1.1	3.3	1.7	2.3	2.3	2.5	3.6
	2	5	17	14	12	18	16	19
EA	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	26.3	29.3	27.0	26.0	26.5	26.6	28.5	28.0
	28.0	31.0	37.2	29.0	33.2	33.1	31.6	34.2
	24.8	27.5	23.0	24.1	22.1	20.1	25.0	20.3
		1.1	3.0	1.3	3.2	3.5	1.8	3.0
	2	5	17	14	12	18	16	19
C	1 3	2 1	4 3	5 3	4 3	3 3	2 3	3 2
	0.5	0.5	0.4	0.7	0.8	0.6	0.6	0.7
	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.4	0.3	0.1	0.0	0.3	0.1	0.1	0.1
		0.3	0.3	0.3	0.3	0.3	0.3	0.2
	3	5	17	13	13	19	16	19
P	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	11.5	9.3	12.5	14.0	13.2	12.3	12.6	13.1
	11.7	10.7	14.7	18.0	17.0	16.5	18.0	18.0
	11.5	8.5	8.5	11.5	8.6	8.6	7.6	8.5
		0.9	1.7	1.7	2.5	2.2	2.5	2.6
	3	5	17	14	12	20	16	19
W	1 3	2 1	4 3	5 4	4 3	3 3	2 3	3 2
	6.5	8.5	7.2	6.0	8.0	7.7	7.1	7.5
	7.6	12.3	13.8	10.2	11.2	12.8	12.8	11.2
	5.7	7.1	2.5	4.0	6.1	4.0	0.0	0.0
		2.0	3.1	1.7	1.3	1.7	4.0	2.2
	3	5	17	14	12	20	16	19
W(X)	5.0-	7.8-	6.6-	5.6-	6.8-	6.5-	6.5-	5.1-
	4.3-	7.1-	0.9	4.0-	5.5-	0.0	0.0	0.0
	5.8-	9.3-	11.5-	9.5-	10.5-	12.6-	11.0-	9.7-
		0.8	3.0	1.5	1.5	2.5	3.5	2.5
W(Y)	4.2-	1.0-	1.2-	1.0-	3.5-	2.2-	2.7-	5.0-
	3.7-	1.2	2.3	1.5	0.1-	4.8	0.0	0.0
	5.0-	8.0-	9.0-	4.6-	6.0-	5.2-	6.5-	7.2-
		3.5	2.5	1.7	2.0	3.1	2.0	1.8

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	3 3	4 4	5 1	4 2	3 3	2 3	2 2
	25.7	25.6	25.6	25.0	24.5	24.0	24.8	25.2
	27.2	29.0	27.6		26.0	27.0	27.0	27.0
	24.1	24.0	24.2		23.0	22.0	23.0	24.0
	0.8	1.0	0.9		1.0	1.1	1.2	1.0
	17	20	12	1	8	14	18	5
T(W)-T(A)	2 2	2 2	4 4	5 1	4 2	3 3	2 3	2 2
	0.4	1.1	0.9	1.0	1.1	0.8	0.3	0.3
	1.2	2.0	2.2		3.0	2.1	3.0	1.0
	1.2-	0.3	1.0-		0.0	2.0-	2.2-	1.0-
	0.8	0.5	1.0		0.8	1.0	1.2	0.8
	13	18	12	1	8	14	18	5
E(W)-E(A)	2 2	2 2	4 4	5 1	4 2	3 3	2 3	2 2
	5.8	6.5	5.7	8.0	6.2	5.1	5.0	4.5
	7.8	9.5	9.2		8.0	7.0	9.1	6.3
	2.7	1.0	1.0		3.0	2.0	1.0	1.5
	1.5	2.0	2.2		1.6	1.6	1.8	1.7
	13	18	12	1	7	10	15	5
EA	2 2	2 2	4 4	5 1	4 2	3 3	2 3	2 2
	25.8	26.3	26.8	23.5	25.1	25.0	25.2	26.2
	29.1	32.5	31.6		28.5	27.7	28.3	29.0
	22.7	22.7	24.3		23.5	22.7	19.1	24.2
	2.0	2.5	2.1		1.5	1.5	2.1	1.5
	13	18	12	1	7	10	15	5
C	2 2	3 3	4 4	5 1	4 2	3 3	2 3	2 2
	0.4	0.5	0.3	0.4	0.8	0.7	0.8	0.7
	1.0	1.0	0.5		1.0	1.0	1.0	1.0
	0.0	0.3	0.1		0.3	0.3	0.3	0.4
	0.3	0.2	0.1		0.3	0.2	0.2	0.2
	17	22	13	1	8	14	19	5
P	3 3	3 2	4 4	5 1	4 2	3 3	2 3	2 2
	11.8	11.1	12.6	14.5	13.1	13.5	13.1	13.2
	14.5	15.6	16.0		16.1	16.5	16.5	16.2
	9.5	2.2	10.0		11.1	10.0	10.0	11.0
	1.5	3.0	1.6		1.3	1.7	1.6	1.7
	15	18	13	1	8	14	19	5
W	2 2	3 3	4 4	5 1	4 2	3 3	2 3	2 2
	9.3	8.6	8.5	9.2	8.3	9.3	9.2	8.5
	15.3	17.0	13.8		10.2	11.2	14.3	9.2
	3.0	1.5	2.5		6.6	7.1	6.6	7.6
	4.0	3.5	3.3		1.5	1.2	1.8	0.6
	17	22	12	1	8	14	19	5
W(X)	8.2-	8.0-	7.7-	8.6-	7.5-	7.7-	7.7-	7.1-
	0.0	1.5-	2.5-		4.2-	4.8-	4.2-	6.2-
	15.3-	17.0-	13.0-		10.0-	9.2-	10.1-	7.6-
	4.6	3.5	3.0		1.5	1.0	1.5	0.5
W(Y)	3.3-	2.1-	2.1-	3.1-	2.3-	4.1-	4.3-	4.0-
	0.1-	1.6	1.6		3.0	3.0	0.1-	0.1-
	6.5-	7.3-	6.7-		6.6-	7.3-	11.0-	6.0-
	2.0	2.6	2.5		2.6	3.1	2.6	2.0

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 2	2 2	4 2	3 3	3 3	3 3	2 3	3 2
	25.8	25.0	24.5	23.8	24.3	24.0	24.0	23.1
	26.0	27.0	27.0	26.0	28.0	26.0	28.0	26.0
	25.7	23.7	22.0	22.0	22.1	22.0	22.0	20.0
		1.0	1.0	0.9	1.3	1.0	1.6	1.5
	2	8	30	36	19	17	10	12
T(W)-T(A)	1 2	2 2	4 2	3 3	3 3	3 3	2 3	3 2
	0.4	0.7	0.6	0.4	0.0	1.3	1.5	1.3
	0.6	1.6	4.0	4.0	3.0	3.8	3.0	4.0
	0.2	1.0-	2.0-	2.5-	4.0-	0.0	1.0-	1.0-
		0.9	1.0	1.0	1.6	1.2	1.3	1.3
	2	8	30	36	19	17	10	12
E(W)-E(A)	1 2	2 2	4 2	3 3	3 3	3 3	2 3	3 2
	7.5	4.1	5.5	5.0	4.5	7.7	6.3	5.3
	7.8	6.7	10.7	8.7	7.1	15.0	8.8	8.5
	7.2	0.3	0.3	1.1	1.0	4.8	0.6	3.1
		2.0	2.3	1.5	1.5	3.0	2.2	1.6
	2	8	30	34	16	15	10	12
EA	1 2	2 2	4 2	3 3	3 3	3 3	2 3	3 2
	24.5	26.7	24.5	23.5	24.2	22.7	24.5	23.6
	24.7	30.2	30.3	26.3	28.0	26.6	27.3	26.0
	24.2	24.2	17.2	21.2	21.0	16.0	22.7	20.7
		1.8	3.0	1.1	1.7	2.6	1.2	1.5
	2	8	30	34	16	15	10	12
C	1 2	2 2	4 3	3 3	3 3	3 3	2 3	3 2
	0.3	0.6	0.4	0.5	0.6	0.6	0.7	0.5
	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.0	0.0	0.3	0.0	0.3	0.1
		0.3	0.2	0.3	0.2	0.3	0.3	0.4
	2	9	33	36	20	17	10	12
P	1 2	2 2	4 3	3 3	3 3	3 3	2 3	3 2
	12.0	11.8	13.0	13.6	15.2	13.3	13.5	12.0
	12.5	14.0	22.0	18.0	18.3	18.7	19.0	17.2
	11.7	9.0	9.6	10.0	11.0	8.7	8.5	7.5
		1.3	2.0	2.0	2.2	3.0	3.5	3.0
	2	9	33	36	20	17	10	12
W	1 2	2 2	4 3	3 3	3 3	3 3	2 3	3 2
	9.0	9.7	8.2	9.5	10.0	7.8	7.5	8.3
	10.2	12.8	14.1	16.5	14.8	11.2	11.2	10.2
	7.6	6.6	0.0	3.5	5.0	4.5	0.0	6.1
		1.7	3.5	2.6	2.7	2.0	3.0	1.2
	2	9	33	36	20	17	10	12
W(X)	8.0-	8.5-	7.0-	8.0-	8.3-	5.7-	5.7-	6.7-
	6.6-	6.2-	0.0	1.1-	1.0-	2.6-	0.0	1.6-
	9.5-	12.0-	12.0-	14.6-	14.8-	8.8-	8.5-	9.5-
		1.5	2.8	2.5	3.7	2.1	2.5	2.0
W(Y)	3.6-	4.2-	3.5-	4.7-	4.1-	4.7-	2.8-	2.3-
	3.5-	2.2-	0.0	1.3-	0.1-	1.5-	4.5	9.0
	3.8-	7.3-	12.5-	10.6-	12.0-	8.2-	7.3-	6.3-
		1.6	3.2	2.0	2.7	2.1	4.0	3.8

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LONGITUDE WEST

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T(A)	4 2 24.8 26.5 23.0 1.1 6	3 3 25.1 26.5 24.2 0.6 18	3 2 24.8 28.1 23.5 0.9 23	3 3 25.1 30.0 23.0 1.5 24	4 3 24.1 27.0 22.0 1.2 26	3 3 24.6 28.0 23.0 1.5 14	3 3 24.2 27.6 22.0 1.2 17	4 3 23.0 26.5 21.0 1.5 23
T(W)-T(A)	4 2 0.3 2.0 1.5- 1.0 6	3 3 0.6 2.0 0.7- 0.6 18	3 2 0.1 1.8 2.8- 0.9 23	3 3 0.0 2.0 2.6- 1.0 23	4 3 0.5 3.0 3.0- 1.3 23	3 3 0.3- 3.0 4.0- 1.6 14	3 3 0.0 2.2 3.3- 1.1 17	4 3 0.7 3.0 2.2- 1.2 19
E(W)-E(A)	4 2 5.1 7.0 3.6 1.1 6	3 3 5.1 9.1 2.5 1.5 18	3 2 3.0 7.1 1.6- 2.5 23	3 3 4.5 8.7 2.0 1.5 23	3 3 4.8 8.7 0.7- 2.5 21	3 3 3.0 8.0 0.2- 2.2 13	3 3 4.5 9.8 1.2 2.2 17	4 3 5.6 8.7 1.7- 2.5 18
EA	4 2 25.0 26.0 23.8 0.8 6	3 3 25.8 29.5 22.5 1.7 18	3 2 26.6 32.3 23.6 2.2 23	3 3 25.1 26.6 22.7 1.0 23	3 3 25.0 30.5 20.2 2.1 21	3 3 25.8 29.0 23.5 1.3 13	3 3 24.0 27.0 18.6 2.2 17	4 3 21.7 30.3 18.1 2.5 18
C	4 2 0.2 0.4 0.1 0.1 8	3 3 0.5 1.0 0.0 0.4 18	4 2 0.6 1.0 0.1 0.3 25	3 3 0.6 1.0 0.1 0.3 22	4 3 0.7 1.0 0.0 0.3 25	3 3 0.6 1.0 0.1 0.3 15	3 3 0.7 1.0 0.1 0.3 17	4 3 0.7 1.0 0.3 0.2 23
P	4 2 14.0 15.7 11.5 1.3 6	3 3 12.3 15.7 9.6 1.5 18	3 2 12.6 15.5 10.0 1.2 26	3 3 13.0 18.0 9.0 2.1 22	3 3 14.5 19.2 8.7 2.3 23	3 3 14.0 20.2 9.5 2.6 15	3 3 13.0 17.1 10.0 1.7 17	4 3 15.0 20.0 11.7 2.1 23
W	4 2 6.1 7.6 2.0 2.0 6	3 3 7.0 11.2 1.0 2.8 18	3 2 7.1 11.2 3.5 1.8 26	3 3 8.6 12.8 6.0 1.6 24	4 3 9.8 14.3 4.0 3.0 26	3 3 7.3 12.8 3.5 3.6 15	3 3 7.1 9.2 3.0 1.5 17	4 3 8.3 12.8 4.5 1.5 23
W(X)	5.8- 1.8- 7.6- 2.0	6.5- 1.0- 10.5- 2.5	6.6- 3.0- 10.5- 1.7	7.7- 3.0- 12.6- 2.0	9.0- 3.0- 14.3- 3.0	5.8- 2.8- 9.7- 3.0	5.7- 3.0- 8.0- 1.5	6.3- 0.1 9.7- 2.5
W(Y)	1.1- 0.1- 3.8- 1.5	2.1- 1.5 7.3- 2.1	2.0- 1.7 6.6- 1.5	1.7- 2.2 8.6- 3.0	3.1- 1.3 6.0- 1.7	4.2- 1.2- 8.3- 2.3	4.0- 0.6- 6.0- 1.6	4.7- 2.3- 8.3- 1.3

APRIL 1964

LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	1 1 26.3 26.5 26.2 3	3 2 25.5 28.0 23.1 1.0 17	3 3 25.0 26.1 23.1 1.0 32	3 3 25.5 27.0 24.2 0.9 15	4 3 24.3 27.0 21.0 1.5 18	3 3 24.2 26.0 23.0 0.9 19	3 3 24.0 27.0 21.7 1.1 20	2 3 24.6 26.0 22.6 1.0 8
T(W)-T(A)	1 1 0.5 1.0 0.3- 3	3 2 0.5 1.7 1.5- 0.9 17	3 3 0.5 2.2 1.0- 0.8 32	3 3 0.2- 0.5 2.0- 0.6 15	4 3 0.8 4.0 1.0- 1.0 18	3 3 0.6 3.0 2.5- 1.3 19	3 3 0.2 1.7 2.5- 1.0 20	2 3 0.6 2.2 1.8- 1.5 8
E(W)-E(A)	1 1 4.1 5.5 2.0 3	3 2 4.5 8.1 0.5 2.3 17	3 3 4.5 9.5 0.6 2.0 32	3 3 4.0 6.3 0.5- 1.3 15	4 3 4.0 7.5 1.2 1.3 18	3 3 4.6 8.5 2.3 1.6 16	3 3 3.3 7.6 0.0 2.2 18	2 3 5.0 8.8 2.5 2.0 8
EA	1 1 29.1 29.5 28.7 3	3 2 27.0 32.8 21.5 2.7 17	3 3 26.1 29.5 22.0 1.6 32	3 3 26.2 30.2 22.7 1.6 15	4 3 28.1 30.2 23.5 1.5 16	3 3 25.0 28.0 22.7 1.5 16	3 3 25.0 30.2 19.8 2.2 18	2 3 25.1 26.5 24.5 0.6 8
C	1 1 0.7 0.9 0.4 3	3 2 0.8 1.0 0.1 0.2 17	3 3 0.7 1.0 0.1 0.3 32	3 3 0.7 1.0 0.4 0.2 13	3 3 0.8 1.0 0.4 0.2 17	3 3 0.6 1.0 0.1 0.3 19	3 3 0.6 1.0 0.3 0.3 21	3 3 0.7 0.9 0.4 0.2 11
P	1 1 13.0 14.0 12.5 3	3 2 13.5 16.1 10.5 1.6 16	3 3 12.5 16.1 7.0 2.0 32	3 3 13.2 15.3 10.2 1.3 15	4 3 14.1 17.5 10.0 1.7 18	3 3 14.1 17.6 11.5 1.7 19	3 3 14.0 18.6 7.6 2.3 21	3 3 13.3 17.5 9.5 2.0 11
W	1 1 6.8 7.6 4.5 3	3 2 8.8 12.8 4.5 2.5 17	3 3 9.3 14.3 5.6 2.2 32	3 3 10.3 12.5 8.1 1.0 15	4 3 8.8 12.5 2.5 2.5 18	3 3 8.0 11.7 4.0 1.6 19	3 3 7.6 9.2 5.0 1.2 21	3 3 7.2 10.2 2.5 1.7 11
W(X)	6.1- 4.5- 7.1-	8.3- 4.0- 12.6- 2.5	8.5- 4.0- 14.1- 2.3	9.5- 6.2- 12.3- 1.6	7.7- 0.4- 11.8- 2.7	7.0- 3.5- 11.0- 1.7	6.5- 4.3- 8.6- 1.1	6.0- 2.5- 7.6- 1.3
W(Y)	1.8- 0.8 3.8-	2.0- 2.2 5.0- 2.1	2.7- 1.5 9.0- 2.6	3.0- 1.6 8.6- 2.5	3.7- 1.0- 6.3- 1.5	3.8- 0.1- 6.0- 1.3	4.0- 0.9- 6.3- 1.0	3.7- 0.0 9.0- 2.1

LATITUDE 10° – 15° N.

MAY 1964

LONGITUDE WEST

	170	165	160	155	150	145	140	135	130
T(A)	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	26.3	25.8	25.6	25.6	25.3	24.5	25.1	24.8	
	29.5	29.0	27.0	29.0	27.5	29.0	28.1	31.0	
	25.0	24.0	24.0	23.8	23.6	21.1	21.5	22.6	
	1.1	1.0	0.9	1.0	1.0	1.6	1.6	2.6	
	12	22	16	19	19	18	8	7	
T(W)-T(A)	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	0.5	0.6	0.6	0.1	0.6	1.0	0.5	0.4	
	2.0	2.0	1.8	2.0	2.2	2.7	3.0	1.7	
	3.5-	1.0-	0.1-	2.0-	1.7-	2.0-	4.3-	2.0-	
	1.2	0.7	0.6	0.9	1.1	1.1	2.0	1.1	
	12	22	16	19	19	18	8	7	
E(W)-E(A)	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	3.8	3.7	4.7	4.2	6.3	5.7	4.8	2.2	
	7.3	6.5	7.5	8.2	11.3	8.1	8.7	7.5	
	1.6	4.0-	2.3	0.7-	3.5	2.5	1.5	0.7-	
	1.5	2.3	1.2	2.0	2.2	1.6	2.0	2.6	
	10	22	16	19	19	18	8	7	
EA	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	29.2	28.7	27.2	27.0	25.2	24.8	26.2	28.0	
	32.8	35.5	29.3	34.2	28.7	29.0	31.0	31.2	
	27.3	24.8	25.0	23.2	21.8	19.8	23.7	24.6	
	1.3	2.7	1.1	2.5	2.2	2.2	2.1	2.2	
	10	22	16	19	19	18	8	7	
C	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	0.8	0.6	0.6	0.6	0.6	0.6	0.8	0.5	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	
	0.4	0.3	0.1	0.1	0.1	0.0	0.3	0.3	
	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.1	
	12	23	16	19	19	18	8	7	
P	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	12.0	12.0	13.0	14.0	13.8	13.1	14.0	14.3	
	15.0	14.5	15.8	17.2	18.0	16.5	17.5	16.7	
	10.0	9.7	10.0	8.0	10.5	9.0	11.1	11.0	
	1.6	1.3	1.7	1.7	1.6	1.8	1.7	1.8	
	10	19	16	19	19	18	8	7	
W	3 2	3 3	3 2	3 3	3 3	3 4	3 3	3 3	
	7.5	7.0	8.8	9.6	8.1	7.5	8.1	11.0	
	10.2	11.2	12.3	12.8	10.7	10.7	12.8	12.8	
	0.5	2.5	5.6	7.1	4.5	3.5	4.0	9.2	
	2.5	2.2	1.7	1.8	1.5	1.8	3.0	1.6	
	12	23	16	19	19	18	8	7	
W(X)	6.7-	6.1-	8.3-	8.6-	7.2-	5.7-	6.5-	8.7-	
	0.4-	0.9-	5.5-	6.6-	4.5-	1.6	3.5-	7.0-	
	9.5-	11.0-	12.3-	12.0-	10.5-	8.1-	9.7-	11.0-	
	2.5	2.6	1.6	2.0	1.2	2.1	2.0	1.5	
W(Y)	1.0-	1.0-	2.5-	3.5-	3.0-	3.7-	4.8-	6.3-	
	5.5	3.8	0.1-	1.3-	0.0	4.8	0.8-	3.5-	
	4.6-	5.0-	5.3-	8.7-	7.0-	7.0-	8.3-	8.3-	
	2.8	2.6	1.6	2.0	2.2	2.8	2.5	1.5	

JUNE 1964

LONGITUDE WEST

	170	165	160	155	150	145	140	135	130
T(A)	3 2	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	27.0	26.2	26.1	25.7	25.5	25.0	25.5	24.6	
	30.0	28.7	29.0	27.0	26.7	27.6	27.0	25.5	
	26.0	24.5	24.0	25.0	24.0	22.6	23.1	23.0	
	1.5	1.0	1.0	0.5	0.7	1.2	0.9	0.8	
	5	13	23	20	17	19	17	11	
T(W)-T(A)	2 3	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	0.5	0.9	0.1	0.1-	0.7	0.7	0.8	0.6	
	0.5	3.0	2.1	0.6	3.0	2.2	2.5	3.0	
	0.4	1.0-	3.5-	2.0-	1.0-	1.0-	0.0	1.0-	
		1.2	1.1	0.6	1.0	0.9	1.0	1.0	
	2	13	23	20	17	18	17	11	
E(W)-E(A)	2 3	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	8.3	6.0	5.3	5.5	4.8	6.3	5.3	5.2	
	8.8	8.8	9.0	7.8	9.3	10.5	8.0	8.7	
	7.8	4.1	0.9-	3.7	2.3	3.5	1.0	0.7-	
		1.1	2.1	1.1	2.0	1.6	2.0	2.8	
	2	13	23	20	17	18	17	11	
EA	2 3	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	24.5	27.8	26.8	25.3	27.0	24.7	27.1	25.1	
	25.5	30.5	34.5	27.3	31.6	27.3	30.5	31.2	
	23.6	26.0	22.2	21.8	22.0	22.1	21.1	21.5	
		1.2	2.2	1.3	2.0	1.5	2.0	3.2	
	2	13	23	20	17	18	17	11	
C	3 2	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	0.5	0.5	0.6	0.5	0.5	0.7	0.7	0.6	
	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.1	0.3	0.3	0.3	0.3	0.0	0.3	0.3	
	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	
	5	13	23	20	17	19	17	11	
P	3 2	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	11.3	12.5	13.3	12.8	12.5	12.8	12.1	13.7	
	13.0	15.5	15.5	14.0	17.0	17.5	16.0	18.1	
	10.0	9.0	11.0	10.8	8.0	8.0	8.2	9.0	
	1.0	2.0	1.2	0.9	1.8	2.6	2.3	2.6	
	5	13	23	18	17	19	17	11	
W	3 2	2 2	3 2	3 3	3 3	4 3	2 3	4 2	
	6.3	9.1	8.6	8.2	8.6	7.5	7.0	7.6	
	7.1	18.0	12.3	10.7	12.3	10.7	13.3	10.2	
	5.6	6.1	2.0	5.6	2.5	2.5	3.5	3.0	
	0.5	3.0	2.6	1.3	2.2	2.6	2.3	2.0	
	5	13	24	20	17	19	17	11	
W(X)	5.6-	7.8-	7.7-	7.0-	7.2-	6.0-	5.1-	5.5-	
	5.2-	5.0-	1.8-	4.2-	2.3-	2.1-	4.7	2.8	
	6.2-	16.8-	11.5-	10.0-	10.5-	9.2-	13.1-	8.6-	
	0.5	3.0	2.5	1.7	2.1	2.1	3.2	3.1	
W(Y)	2.7-	4.0-	3.1-	3.8-	4.1-	4.5-	3.5-	4.1-	
	2.0-	1.0	1.6	1.3	1.8	1.2-	2.1	0.0	
	3.6-	9.0-	7.8-	6.6-	8.0-	7.0-	6.6-	7.6-	
	0.6	2.5	2.5	1.8	2.2	1.5	2.3	2.1	

LATITUDE 10° – 15° N.

JULY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3 26.2 27.0 26.0 3	2 2 26.2 27.0 25.5 0.5 13	4 3 26.0 28.5 25.0 0.7 29	3 3 26.2 28.7 25.0 0.8 20	3 3 25.8 29.0 24.1 1.0 23	3 3 25.7 29.0 24.2 1.0 18	3 3 26.0 29.0 23.5 1.5 19	4 2 25.8 28.0 22.6 1.5 21
T(W)-T(A)	4 3 1.2- 1.C- 2.0- 3	2 2 0.4 2.6 1.1- 1.1 13	4 3 0.7 3.6 1.8- 1.0 29	3 3 0.3 3.0 1.0- 0.8 20	3 3 0.6 2.9 4.C- 1.3 23	3 3 1.3 5.0 0.5- 1.5 18	2 3 1.3 4.1 1.0- 1.3 16	3 2 1.6 4.6 1.0- 1.5 17
E(W)-E(A)	4 3 2.2 3.6 1.2 3	2 2 3.5 6.3 0.4 1.7 13	4 3 5.7 11.5 2.3 1.6 29	3 3 5.7 9.0 3.0 1.5 20	3 3 6.6 10.6 3.0 2.1 23	3 3 7.5 13.1 2.5 2.5 18	2 3 8.2 14.7 1.5 3.8 16	3 2 8.0 17.6 0.6 4.3 17
EA	4 3 27.3 28.5 26.0 3	2 2 29.5 32.2 28.0 1.0 13	4 3 27.3 31.2 24.2 1.3 29	3 3 27.0 29.7 24.5 1.5 20	3 3 25.7 29.6 21.0 2.3 23	3 3 26.3 31.6 22.0 2.2 18	2 3 26.8 31.3 20.0 3.2 16	3 2 26.5 31.0 20.2 3.0 17
C	4 3 0.4 0.5 0.3 3	2 2 0.7 1.0 0.4 0.2 13	4 3 0.7 1.0 0.1 0.2 28	3 3 0.5 0.9 0.1 0.2 18	3 3 0.6 1.C 0.1 0.3 22	3 3 0.6 1.0 0.0 0.4 18	3 3 0.6 1.0 0.0 0.4 20	4 2 0.7 1.0 0.1 0.3 20
P	4 3 14.6 15.0 14.5 3	2 2 11.8 14.5 8.5 1.6 12	4 3 13.1 17.0 10.1 1.5 28	3 3 13.3 16.0 12.0 1.0 15	3 3 13.3 16.C 11.0 1.2 22	3 3 13.0 14.5 11.5 0.9 15	3 3 13.5 18.0 10.5 1.8 18	4 2 12.3 17.0 8.6 2.3 20
W	4 3 4.2 5.0 3.5 3	2 2 9.5 13.8 4.0 2.8 13	4 3 10.0 14.8 5.0 2.1 29	3 3 7.1 10.2 2.0 2.0 20	3 3 6.C 10.7 2.0 2.8 23	3 3 7.5 39.0 1.5 8.0 18	3 3 4.0 9.7 0.0 3.0 17	4 2 5.7 10.2 0.5 3.0 21
W(X)	4.1- 3.5- 4.7-	8.2- 4.0- 12.0- 2.2	9.0- 4.7- 14.0- 2.1	6.6- 1.8- 10.0- 2.0	4.8- 0.7- 10.5- 3.0	5.5- 3.2 38.5- 8.5	2.1- 3.8 7.3- 3.1	0.3- 6.7 7.3- 4.0
W(Y)	0.6- 0.0 1.7-	4.0- 1.6 9.0- 3.0	3.7- 1.5 8.3- 2.0	2.0- 0.0 5.6- 1.2	2.7- 0.0 6.5- 2.C	3.6- 0.8- 7.0- 1.8	1.1- 4.8 6.3- 2.7	3.0- 8.1 10.1- 4.0

AUGUST 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 1 26.0 26.5 25.6 2	3 2 26.1 28.0 24.5 0.9 40	4 4 26.1 28.0 25.0 C.8 27	3 3 26.5 30.0 24.0 1.5 13	4 3 26.6 33.0 24.C 2.0 12	3 3 26.2 28.0 23.7 1.0 13	1 5 26.7 27.6 26.0 3	3 2 25.8 28.0 23.7 1.2 10
T(W)-T(A)	3 1 1.C 1.0 1.0 2	3 2 0.8 3.7 1.5- 1.1 40	4 4 C.7 2.1 1.0- 0.9 26	4 4 0.1- 1.1 2.8- 1.2 12	4 2 0.9 2.0 1.0- 0.8 9	3 3 0.9 3.8 1.C- 1.3 12	1 5 0.9 2.1 0.1 3	3 2 1.6 3.8 0.3- 1.2 10
E(W)-E(A)	3 1 6.0 7.5 4.3 2	3 2 5.5 10.0 2.1 1.8 40	4 4 5.1 9.1 2.3 1.6 26	4 4 4.8 7.0 2.0 1.5 12	4 2 6.3 10.C 0.4 2.5 9	3 3 6.1 9.3 0.8 2.1 12	1 5 5.7 7.3 3.2 3	3 2 5.5 11.1 0.9 3.0 10
EA	3 1 27.7 30.0 25.5 2	3 2 28.0 31.5 23.5 1.3 40	4 4 28.0 30.7 23.3 1.6 26	4 4 27.8 31.5 24.7 2.0 12	4 2 27.0 29.2 23.5 1.8 9	3 3 27.6 29.5 26.0 1.5 12	1 5 29.1 30.5 28.5 3	3 2 29.1 32.8 22.7 3.1 10
C	3 1 0.5 0.8 0.3 2	3 2 0.6 1.0 0.1 0.2 39	4 4 0.6 1.0 0.1 0.3 30	3 3 0.7 1.0 0.3 0.2 14	4 3 0.6 1.C 0.1 0.2 14	3 3 0.6 1.0 0.3 0.3 14	1 5 0.5 0.8 0.4 3	3 2 0.8 1.0 0.0 0.3 10
P	3 1 12.C 12.0 12.0 2	3 2 12.1 15.6 8.8 1.8 40	4 4 13.0 16.6 9.6 1.8 30	3 3 13.2 15.0 10.7 1.3 12	4 3 13.2 17.0 10.0 2.C 14	3 3 11.8 14.5 9.7 1.3 14	1 5 12.8 14.5 10.7 3	3 2 11.5 12.5 9.6 0.9 10
W	5 1 6.6 1	3 2 5.3 9.2 0.0 2.2 34	4 3 7.0 11.2 2.0 2.0 28	3 3 6.1 8.7 2.0 2.1 13	4 3 8.0 16.0 3.C 2.7 14	3 3 6.6 9.7 3.0 1.8 14	1 5 3.3 4.5 2.5 3	3 2 5.6 10.7 2.0 3.0 10
W(X)	6.2-	4.5- 1.0 8.1- 2.2	6.0- 1.8- 9.7- 2.1	4.5- 1.6- 7.6- 2.0	6.2- 0.C 15.6- 3.5	5.5- 0.7- 9.1- 2.3	2.6- 1.5- 4.2-	1.1- 6.6 10.0- 5.6
W(Y)	2.2-	1.2- 3.5 8.0- 2.5	3.0- 0.1- 6.6- 1.8	3.7- 0.0 6.7- 2.0	3.C- 5.0 5.6- 3.0	1.6- 5.2 4.6- 2.8	1.8- 1.5- 2.0-	0.0 3.8 3.7- 2.7

SEPTEMBER 1964

	LONGITUDE WEST 170	165	160	155	150	145	140	135	130
T(A)	2 3 26.2 29.0 24.0 4	3 2 26.7 30.0 25.0 1.0 24	3 3 26.8 30.0 25.0 0.9 41	3 3 26.2 28.0 25.0 0.7 17	2 3 26.6 31.0 25.0 1.2 20	4 3 26.0 26.5 25.0 0.6 8	4 5 25.0 1	3 3 25.5 26.6 24.0 0.8 12	
T(W)-T(A)	2 3 1.0 3.0 1.0- 4	3 2 0.5 2.0 2.2- 1.1 23	3 3 0.3 2.0 2.0- 0.9 41	3 3 0.6 3.0 0.5- 1.0 17	2 3 0.3 2.1 3.0- 1.1 20	4 3 0.9 2.0 0.0 0.7 8	4 5 3.0 1	3 3 1.8 3.0 0.6- 1.0 12	
E(W)-E(A)	2 3 4.3 6.7 3.1 4	3 2 5.5 8.3 2.0 1.5 23	3 3 5.2 8.2 1.2 1.6 41	3 3 5.7 10.0 3.1 1.8 17	2 3 4.2 6.5 2.3 1.1 20	4 3 6.1 9.8 4.6 1.6 8	4 5 8.7 1	3 3 7.5 11.0 2.7 2.7 12	
EA	2 3 29.5 31.5 26.6 4	3 2 28.7 31.5 26.5 1.5 23	3 3 28.5 32.1 25.2 1.5 41	3 3 27.5 29.5 25.5 1.0 17	2 3 29.0 30.2 27.2 0.8 20	4 3 27.0 28.7 22.6 1.8 8	4 5 26.6 1	3 3 27.0 30.3 23.8 2.1 12	
C	2 2 1.0 1.0 1.0 3	3 2 0.6 1.0 0.0 0.3 24	3 3 0.5 1.0 0.0 0.3 41	3 3 0.5 1.0 0.0 0.3 18	2 3 0.7 1.0 0.3 0.3 20	4 3 0.8 1.0 0.5 0.2 8	3 3 0.4 0.6 0.3 4	3 3 0.7 1.0 0.3 0.3 13	
P	2 3 11.5 12.5 10.5 4	2 2 11.5 14.1 8.3 1.6 23	3 3 12.0 14.5 9.2 1.5 41	3 3 13.2 15.0 11.0 1.0 18	2 3 12.5 15.5 10.0 1.5 20	4 3 11.1 12.5 9.5 1.0 8	3 3 11.0 12.0 10.0 4	3 3 10.0 12.5 7.5 1.5 11	
W	2 3 4.0 9.2 1.5 4	2 2 6.0 10.7 0.0 2.7 21	3 3 6.5 12.8 2.6 2.7 38	3 3 6.0 10.2 0.5 2.5 18	2 3 7.8 10.7 2.5 2.7 20	4 3 10.2 12.3 8.1 1.2 8	3 3 2.5 2.5 2.0 4	3 3 5.2 9.2 0.0 3.1 13	
W(X)	3.8- 1.5- 8.6-	5.0- 2.0 8.8- 2.7	5.3- 3.0 12.0- 3.3	4.8- 2.0 9.5- 3.0	6.6- 0.3- 10.0- 2.7	4.8- 10.0 10.5- 6.5	0.3- 1.6 1.2-	2.0- 2.6 9.2- 3.8	
W(Y)	1.0- 0.0 3.1-	1.5- 5.8 10.1- 3.0	0.0 7.5 6.6- 3.2	2.5- 3.5 5.6- 2.2	3.2- 2.8 6.3- 2.5	1.0- 11.7 7.8- 6.2	2.0- 1.8- 2.3-	1.2- 7.7 5.7- 4.0	

OCTOBER 1964

	LONGITUDE WEST 170	165	160	155	150	145	140	135	130
T(A)	3 3 26.7 27.6 26.0 0.5 16	3 2 26.3 27.5 24.5 0.7 24	3 2 26.0 28.0 24.5 0.8 25	3 3 26.0 28.1 24.3 0.8 30	3 3 26.0 28.0 24.2 0.9 28	3 3 25.7 28.0 24.2 0.9 19	4 3 25.5 28.0 24.2 0.9 11	3 3 25.7 28.0 23.7 1.0 15	
T(W)-T(A)	3 3 0.0 2.2 1.6- 1.0 16	3 2 0.8 4.1 0.8- 1.0 24	3 2 0.9 2.1 1.3- 0.9 24	3 3 0.9 2.5 1.5- 0.8 29	3 3 0.7 3.3 0.9- 1.0 28	3 3 1.0 3.3 2.0- 1.3 19	4 3 1.5 2.6 1.0- 1.0 11	3 3 1.1 3.2 2.7- 1.3 15	
E(W)-E(A)	3 3 4.5 10.0 0.5 2.6 16	3 2 6.1 10.3 2.3 2.0 24	3 2 5.0 9.8 1.0 2.2 24	3 3 6.5 10.1 4.1 1.5 29	3 3 6.1 10.3 2.6 1.6 28	3 3 6.3 11.0 3.0 1.6 19	4 3 6.5 8.0 4.3 1.1 11	3 3 7.3 11.8 4.0 2.0 14	
EA	3 3 28.7 32.8 26.5 1.7 16	3 2 27.7 31.2 24.8 1.3 24	3 2 28.5 31.3 26.0 1.5 24	3 3 27.1 29.8 24.3 1.3 29	3 3 26.6 29.0 24.0 1.7 28	3 3 26.6 29.0 23.5 1.5 19	4 3 27.0 29.0 24.5 1.3 11	3 3 26.3 28.5 21.8 2.0 14	
C	3 3 0.6 1.0 0.3 0.3 16	3 2 0.6 1.0 0.0 0.3 24	3 2 0.7 1.0 0.1 0.3 25	3 3 0.6 1.0 0.1 0.2 30	3 3 0.6 1.0 0.1 0.3 27	3 3 0.6 1.0 0.0 0.3 19	4 3 0.6 1.0 0.1 0.3 11	3 3 0.6 1.0 0.0 0.3 15	
P	3 3 11.5 15.1 9.0 1.5 16	3 2 11.8 15.5 8.6 2.0 24	3 2 12.7 15.0 9.5 1.1 25	3 3 13.3 17.0 11.0 1.6 30	3 3 14.1 17.5 11.0 1.6 28	3 3 12.5 16.5 9.6 2.0 19	4 3 13.0 17.0 10.0 2.3 11	3 3 12.8 16.5 9.0 2.0 15	
W	3 3 7.0 9.2 4.0 1.5 13	3 2 7.6 10.2 0.0 2.2 22	3 2 6.3 10.8 0.6 2.7 25	3 3 6.1 10.5 2.5 2.1 30	3 3 6.5 10.7 3.0 2.5 28	3 3 7.0 10.7 3.5 2.0 19	4 3 5.6 8.1 2.0 1.5 10	3 3 6.0 9.7 2.5 2.0 13	
W(X)	6.3- 3.5- 8.6- 1.6	7.5- 0.0 10.1- 2.2	5.5- 0.3- 9.6- 2.6	5.6- 0.0 10.3- 2.3	6.0- 2.0- 10.0- 2.1	6.2- 3.5- 9.2- 1.8	5.0- 1.7- 8.0- 1.6	4.2- 1.5- 7.0- 1.6	
W(Y)	2.2- 0.1- 5.2- 1.5	0.9- 1.5 5.2- 1.6	1.2- 4.8 6.0- 3.0	1.0- 3.8 5.2- 2.1	1.1- 3.8 7.0- 2.5	1.7- 2.5 5.5- 2.5	1.8- 1.0 4.0- 1.2	2.1- 7.6 7.7- 3.7	

LATITUDE 10° - 15° N.

NOVEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 2	3 3	3 3	3 3	3 3	3 3	2 3
	26.0	26.0	25.6	25.1	25.0	25.0	24.7	25.0
	27.1	27.0	27.2	26.7	28.1	28.0	28.5	27.0
	24.0	25.0	25.0	23.0	23.5	23.7	23.1	22.6
	0.9	0.6	0.8	0.9	0.8	0.9	0.9	1.0
	9	18	25	18	30	22	17	13
T(W)-T(A)	4 3	3 2	3 3	3 3	3 3	3 3	3 3	2 3
	0.4	0.8	0.7	0.8	0.8	1.0	1.0	0.9
	2.5	1.6	2.0	2.6	3.0	3.0	3.0	2.2
	0.6-	0.3-	0.7-	0.2-	2.6-	1.0-	1.0-	0.5-
	1.0	0.6	0.8	0.8	1.1	1.0	1.0	0.9
	7	18	25	18	30	22	17	12
E(W)-E(A)	4 3	3 2	3 3	3 3	3 3	3 3	3 3	2 3
	5.5	5.3	5.7	4.5	4.3	4.0	4.0	2.7
	8.7	8.0	12.6	7.5	10.6	8.8	6.7	4.3
	2.2	3.1	3.0	2.0	0.2-	0.0	1.2	0.3-
	2.0	1.0	2.0	1.5	2.3	2.0	1.5	1.3
	7	18	25	18	30	22	17	11
EA	4 3	3 2	3 3	3 3	3 3	3 3	3 3	2 3
	26.7	27.8	26.6	27.1	27.0	27.5	27.0	29.1
	30.2	30.2	28.5	28.7	30.6	29.7	31.6	31.0
	23.8	25.6	21.0	25.5	21.3	24.6	22.7	26.2
	1.8	1.0	1.8	1.0	2.0	1.3	2.2	1.3
	7	18	25	18	30	22	17	11
C	4 3	3 2	3 3	3 3	4 3	3 3	3 3	2 3
	0.5	0.5	0.5	0.8	0.6	0.8	0.8	0.5
	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.3	0.1	0.1	0.3	0.0	0.1	0.4	0.1
	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3
	10	18	25	15	29	22	17	13
P	4 3	3 2	3 3	3 3	3 3	3 3	3 3	3 3
	11.0	11.0	11.5	12.1	12.8	13.2	12.5	11.8
	12.6	12.5	14.5	15.0	17.5	16.0	15.0	14.0
	9.6	8.5	8.6	9.2	8.0	9.1	9.0	10.0
	1.2	1.1	1.3	1.6	1.8	1.8	1.5	1.2
	5	18	21	18	32	20	13	9
W	4 3	3 2	3 3	3 3	4 3	3 3	2 3	2 3
	9.0	10.7	10.0	9.6	7.2	7.2	7.5	6.3
	12.8	18.0	18.0	13.0	12.3	13.8	10.7	10.7
	6.6	6.6	5.0	3.5	0.0	0.0	0.0	2.5
	1.6	2.7	2.7	2.8	2.5	3.2	2.6	1.8
	10	18	25	18	31	22	14	13
W(X)	8.8-	8.8-	8.8-	9.0-	6.7-	6.7-	6.1-	5.3-
	6.6-	5.1-	3.7-	3.5-	0.0	0.0	0.0	1.6-
	12.0-	13.6-	13.6-	12.6-	11.5-	13.6-	10.6-	9.2-
	1.5	2.0	2.3	2.6	2.5	3.2	2.8	2.0
W(Y)	1.5-	5.1-	3.3-	2.5-	1.5-	1.3-	2.0-	3.0-
	0.1-	0.1-	1.6	1.6	2.1	1.8	5.8	0.9-
	4.5-	12.0-	11.6-	5.5-	8.0-	6.6-	9.0-	8.0-
	1.7	3.5	3.3	2.3	2.2	2.3	3.5	1.5

DECEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	5 4	3 2	3 3	3 3	3 3	3 3	3 3	3 3
	26.0	25.5	25.6	25.5	25.5	24.7	24.2	24.0
		28.0	30.5	27.0	27.0	26.5	25.5	25.5
		24.0	23.1	24.2	23.7	22.5	22.5	22.6
		1.0	1.5	0.6	0.8	1.0	1.0	0.9
	1	13	22	19	18	11	8	13
T(W)-T(A)	5 4	3 2	3 3	3 3	3 3	3 3	3 3	3 3
	0.0	0.9	0.5	0.2	0.3	0.5	1.0	1.0
		3.2	2.7	1.8	3.2	2.7	2.5	2.7
		1.0-	3.8-	1.0-	2.5-	1.8-	0.7-	1.1-
		1.2	1.5	0.9	1.3	1.2	1.0	1.1
	1	12	22	19	18	11	8	13
E(W)-E(A)	5 4	3 2	3 2	3 3	3 3	3 3	3 3	3 3
	3.5	5.2	4.5	5.2	5.5	4.1	5.8	5.7
		8.5	6.2	6.8	11.3	8.1	14.2	14.0
		3.0	0.7	3.7	3.0	0.2-	0.3-	1.6
		1.8	1.2	0.7	1.8	2.1	4.5	3.3
	1	12	21	19	17	9	7	13
EA	5 4	3 2	3 2	3 3	3 3	3 3	3 3	3 3
	28.0	27.6	27.3	25.8	25.7	26.1	24.7	24.0
		29.5	30.0	28.5	28.5	29.5	28.0	27.1
		24.5	24.3	24.1	22.0	23.3	20.6	17.5
		1.5	1.5	1.0	1.5	1.5	2.2	2.6
	1	12	21	19	17	9	7	13
C	5 4	3 2	3 3	3 3	3 3	3 3	3 3	3 3
	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.6
		1.0	1.0	1.0	1.0	0.9	1.0	1.0
		0.1	0.1	0.3	0.1	0.1	0.1	0.1
		0.2	0.3	0.2	0.3	0.3	0.3	0.4
	1	13	24	19	18	11	8	14
P	5 4	3 2	3 3	3 3	3 3	3 3	2 3	3 3
	9.0	11.8	11.8	12.3	11.5	12.2	11.7	12.8
		14.7	14.7	14.0	13.5	14.5	13.7	18.5
		8.0	9.6	9.5	9.5	11.0	9.5	9.5
		1.8	1.2	1.1	1.1	1.0	1.1	2.5
	1	13	24	19	19	11	7	12
W	5 4	3 2	3 3	3 3	3 3	3 3	3 3	3 3
	8.1	7.3	8.5	7.6	8.6	7.3	7.2	8.8
		11.7	13.3	11.2	12.8	9.2	10.2	12.8
		5.0	3.0	5.0	5.0	5.0	4.5	5.0
		1.7	2.6	1.5	2.3	1.0	1.7	2.0
	1	13	24	19	19	11	8	14
W(X)	2.8-	6.1-	7.0-	6.5-	7.5-	8.2-	6.3-	7.2-
		2.8	1.5-	3.8-	3.2-	4.5-	4.2-	3.8-
		11.0-	12.8-	9.7-	12.2-	7.7-	10.0-	9.7-
		3.1	3.0	1.5	2.6	1.1	1.8	1.7
W(Y)	7.6	1.5-	0.7-	4.0-	2.8-	0.7-	3.2-	5.0-
		4.1	12.5	2.1-	7.0	6.2	1.5-	2.8-
		4.8-	6.8-	5.6-	5.0-	7.0-	5.2-	8.3-
		2.6	4.3	1.0	3.0	3.7	1.3	1.5

JANUARY 1965

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	3 2	2 2	3 3	3 3	3 3	4 3	2 3	3 2	
	25.7	25.2	25.0	24.6	24.1	23.5	24.3	22.2	
	26.0	28.5	26.2	26.0	26.0	25.0	26.0	25.5	
	25.0	24.2	23.7	23.5	22.5	23.0	23.0	19.2	
	0.4	1.2	0.8	0.6	0.9	0.8	1.1	2.1	
	6	8	30	15	22	10	5	6	
T(W)-T(A)	3 2	2 2	3 3	3 3	3 3	3 2	2 3	3 2	
	0.8	1.2	0.5	0.5	0.7	2.3	1.0	2.6	
	1.6	3.1	2.7	2.0	2.0	3.0	3.0	5.0	
	0.0	1.8-	1.3-	0.2-	0.4-	1.0	0.0	0.0	
	0.6	1.5	0.9	0.5	0.8	0.6	1.2	1.7	
	6	8	28	14	19	9	5	6	
E(W)-E(A)	3 2	2 2	3 3	3 3	3 3	3 2	2 3	3 2	
	5.3	7.0	5.1	4.5	6.3	8.5	6.0	8.1	
	8.8	13.1	8.5	6.3	10.0	11.0	8.3	12.2	
	2.2	2.7	1.2	1.5	3.2	6.2	3.0	2.0	
	2.2	3.6	1.6	1.1	1.8	1.5	2.5	4.0	
	6	8	26	14	19	9	5	6	
EA	3 2	2 2	3 3	3 3	3 3	3 2	2 3	3 2	
	27.2	25.6	25.8	25.2	23.0	22.7	24.5	21.5	
	30.5	29.8	29.2	29.0	25.7	26.0	26.6	27.6	
	24.3	21.6	22.5	24.0	20.5	20.5	22.2	17.0	
	2.0	3.1	1.8	1.2	1.2	1.7	1.7	4.5	
	6	8	26	14	19	9	5	6	
C	3 2	2 2	3 3	3 3	3 3	4 3	2 4	3 2	
	0.3	0.7	0.6	0.6	0.4	0.7	0.6	0.4	
	0.4	1.0	1.0	1.0	0.9	1.0	1.0	0.9	
	0.3	0.3	0.0	0.0	0.0	0.1	0.1	0.1	
	0.1	0.3	0.3	0.4	0.3	0.3	0.3	0.3	
	6	8	30	15	22	10	6	6	
P	3 2	2 2	3 3	3 3	3 3	4 3	3 4	3 2	
	12.0	9.6	10.6	11.6	13.1	14.1	13.0	11.7	
	13.5	13.7	16.1	17.0	17.1	18.0	15.0	13.0	
	9.7	6.2	8.0	8.2	9.0	11.0	10.0	10.5	
	1.1	2.7	2.0	2.2	1.8	1.8	1.8	0.9	
	6	7	28	15	22	10	5	6	
W	3 2	2 2	3 3	3 3	3 3	4 3	2 4	3 2	
	11.1	8.3	7.2	8.3	6.6	7.5	7.5	9.8	
	12.8	12.8	18.0	11.7	10.8	15.3	12.8	10.2	
	9.7	5.6	2.5	3.1	2.5	2.5	5.0	7.6	
	1.1	2.2	2.7	3.1	2.5	4.1	2.5	1.0	
	6	8	30	15	22	10	6	6	
W(X)	9.5-	7.5-	6.0-	8.0-	5.5-	7.0-	6.1-	5.0-	
	6.1-	4.8-	0.8	2.1-	0.7-	2.3-	4.3-	1.8	
	11.5-	12.8-	11.5-	11.6-	10.0-	15.3-	12.0-	10.0-	
	1.7	2.5	2.8	3.3	2.2	4.2	2.7	4.3	
W(Y)	5.5-	1.5-	0.2	0.3	3.0-	1.5-	3.7-	6.5-	
	1.6-	2.5	7.5	2.6	0.8	2.5	1.2-	1.8-	
	7.6-	6.0-	13.8-	2.2-	6.7-	5.0-	6.0-	10.2-	
	2.0	2.8	3.8	1.5	2.0	1.8	1.6	3.0	

FEBRUARY 1965

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)		3 2	3 2	3 3	3 3	3 4	5 3	3 2	
		24.7	24.0	24.5	24.5	23.5	22.5	23.2	
		28.5	25.2	26.0	26.1	25.0	23.0	24.0	
		22.7	22.0	22.6	22.6	22.5	22.0	22.6	
		1.2	0.8	0.8	0.8	0.9		0.5	
	0	23	33	40	25	8	4	7	
T(W)-T(A)		3 2	3 2	3 3	3 3	3 4	5 3	3 2	
		1.0	0.8	0.1	0.2	1.6	2.0	0.8	
		2.7	3.0	2.0	2.3	2.5	2.0	2.0	
		2.2-	1.3-	1.6-	1.2-	0.5	2.0	0.0	
		1.2	1.0	0.9	0.8	0.8		0.8	
	0	23	33	40	25	8	4	7	
E(W)-E(A)		3 2	3 2	3 3	3 3	3 4	5 3	3 2	
		7.5	5.3	4.3	4.2	7.5	6.0	4.5	
		15.0	9.6	8.5	7.2	10.6	6.2	8.3	
		2.6	0.7	0.1-	0.6	4.7	6.0	0.9	
		2.7	2.0	1.5	1.5	1.8		2.2	
	0	23	33	40	25	8	4	7	
EA		3 2	3 2	3 3	3 3	3 4	5 3	3 2	
		23.7	24.1	24.7	24.8	22.6	22.6	23.6	
		27.8	28.8	29.7	29.0	23.6	23.5	25.7	
		17.6	20.7	21.5	20.3	20.0	22.0	21.2	
		2.5	1.7	1.5	1.7	1.0		1.5	
	0	23	33	40	25	8	4	7	
C		3 2	3 2	3 3	3 3	4 4	5 3	3 2	
		0.4	0.6	0.6	0.8	0.7	0.7	0.6	
		0.9	1.0	1.0	1.0	1.0	0.8	1.0	
		0.0	0.0	0.3	0.1	0.3	0.6	0.3	
		0.2	0.3	0.3	0.3	0.3		0.3	
	0	23	33	39	25	7	4	7	
P		3 2	3 2	3 3	3 3	3 4	5 3	2 3	
		11.5	12.8	11.8	11.2	11.5	10.6	11.5	
		17.5	17.0	17.0	14.0	15.0	12.0	12.0	
		8.6	10.1	8.0	8.5	9.1	9.0	11.0	
		2.2	1.5	2.0	1.6	1.8			
	0	23	34	40	25	8	4	4	
W		3 2	3 2	3 3	3 3	3 4	5 3	3 2	
		8.5	9.2	7.7	9.1	9.0	6.2	8.7	
		13.8	20.5	14.0	15.5	12.8	6.6	10.2	
		5.0	1.8	0.0	2.0	7.6	6.1	6.6	
		2.7	3.6	3.5	3.5	1.5		1.3	
	0	23	34	40	25	8	4	7	
W(X)		5.5-	6.8-	6.0-	5.8-	7.5-	5.3-	7.7-	
		1.6-	0.0	0.0	1.6	2.8-	5.2-	5.0-	
		12.0-	19.2-	11.0-	12.0-	12.0-	5.7-	10.2-	
		3.0	3.6	3.0	3.5	2.5		2.0	
W(Y)		6.0-	5.2-	3.7-	6.1-	3.3-	3.1-	3.5-	
		3.2-	3.3	3.5	1.0	0.1-	3.0-	0.1-	
		9.8-	11.0-	11.1-	13.2-	8.1-	3.3-	5.2-	
		1.2	3.1	3.6	3.2	2.6		1.6	

LATITUDE 10°-15° N.

MARCH 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2 25.2 26.0 25.0 3	2 2 25.0 27.0 23.7 1.0 13	3 3 24.2 26.1 22.6 0.8 21	3 3 24.5 27.5 23.0 1.0 30	3 3 24.5 30.0 22.5 1.5 19	3 3 23.7 27.0 22.0 1.2 12	2 4 24.6 28.0 22.0 2.0 8	3 2 23.1 27.5 20.0 1.5 25
T(W)-T(A)	0	3 2 1.3 3.0 1.5- 1.5 8	3 3 0.6 2.0 0.7- 0.7 17	3 3 0.2- 1.0 2.1- 1.0 28	4 3 0.1 1.5 4.5- 1.1 16	3 3 0.5 2.3 1.0- 1.0 8	2 4 1.0- 1.0 4.2- 2.0 5	3 2 0.2- 2.1 3.7- 1.2 18
E(W)-E(A)	0	3 2 8.8 13.3 5.1 2.5 8	3 3 5.5 10.3 1.0 2.1 17	3 3 4.7 7.6 0.9- 2.2 28	4 3 5.5 7.7 2.5 1.5 16	3 3 3.7 7.1 0.4 1.7 8	2 4 4.8 7.1 4.0 1.1 5	3 2 4.1 8.8 0.5 2.2 18
EA	0	3 2 23.6 25.5 20.1 1.6 8	3 3 23.8 29.5 20.1 2.2 17	3 3 24.1 27.1 19.6 1.7 28	4 3 23.7 26.5 22.0 1.2 16	3 3 24.7 28.2 21.6 2.2 8	2 4 24.0 27.0 21.8 1.6 5	3 2 22.6 26.2 17.5 2.7 18
C	3 2 0.8 1.0 0.8 3	2 2 0.3 0.8 0.1 0.3 13	3 3 0.4 0.9 0.0 0.3 21	3 3 0.4 1.0 0.0 0.2 30	3 3 0.4 1.0 0.0 0.3 19	3 3 0.6 1.0 0.1 0.3 12	2 4 0.7 1.0 0.4 0.2 8	3 2 0.6 1.0 0.1 0.3 25
P	3 2 12.2 13.0 11.0 3	2 2 12.6 16.1 10.1 1.6 13	3 3 13.6 16.5 11.0 1.5 21	3 3 13.0 15.0 10.0 1.3 30	3 3 13.0 15.5 10.0 1.3 19	3 3 13.2 15.5 10.0 1.5 12	2 4 12.3 15.0 11.0 1.5 8	3 2 14.3 18.5 10.5 2.2 23
W	3 2 5.7 6.1 5.0 3	2 2 5.6 8.7 1.5 2.3 13	3 3 6.3 9.5 3.0 1.6 21	3 3 6.5 12.3 3.0 2.1 29	3 3 8.0 12.3 0.0 3.8 19	3 3 7.3 8.1 5.0 1.0 12	2 4 8.0 9.7 5.0 1.5 8	3 2 8.0 12.8 0.0 3.5 24
W(X)	5.7- 5.0- 6.0-	5.1- 0.5- 8.1- 2.7	5.5- 0.0 8.5- 2.0	5.5- 2.3- 10.5- 2.0	7.3- 0.0 12.3- 3.6	6.8- 5.0- 8.1- 1.0	6.3- 4.7- 7.5- 0.8	6.1- 0.0 10.6- 2.5
W(Y)	1.0- 0.9- 1.0-	1.2- 1.2 4.1- 1.5	2.3- 0.0 4.8- 1.3	2.6- 2.0 9.0- 2.6	1.6- 1.6 9.0- 2.6	1.6- 1.3 5.2- 1.8	4.5- 1.7- 7.5- 2.0	4.5- 1.7 10.7- 3.1

APRIL 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2 27.2 28.5 26.0 3	2 2 25.7 27.5 24.2 1.0 9	3 2 25.0 27.5 22.3 0.9 24	3 3 25.3 26.0 24.1 0.6 16	3 3 24.7 26.0 23.1 0.6 22	4 4 25.0 30.0 23.0 2.0 9	3 3 24.0 28.0 20.6 2.1 6	3 3 22.5 24.0 21.0 1.0 8
T(W)-T(A)	2 2 0.7- 0.4 2.0- 3	2 2 0.3 2.2 2.0- 1.2 9	3 2 0.3 2.0 1.5- 0.7 24	3 3 0.3 1.0 0.4- 0.4 16	3 3 0.2 2.2 1.1- 0.7 22	4 4 0.3- 3.0 4.0- 2.0 9	3 3 1.5 3.2 2.0- 1.7 6	2 4 1.7 4.0 0.0 1.5 5
E(W)-E(A)	2 2 4.3 4.8 3.8 3	2 2 3.5 7.6 0.6- 2.5 9	3 2 2.8 5.5 0.4- 1.3 24	3 3 5.8 7.2 4.0 0.9 16	3 3 5.5 8.5 0.5 2.0 22	4 4 4.8 10.2 0.2- 3.8 8	3 3 7.5 10.2 5.7 1.5 6	2 4 7.1 12.8 4.2 3.0 5
EA	2 2 28.2 28.8 27.6 3	2 2 28.1 31.2 25.0 1.8 9	3 2 27.5 30.7 23.1 1.7 24	3 3 25.0 28.0 23.7 1.0 16	3 3 24.3 27.1 22.0 1.5 22	4 4 24.2 26.8 19.3 3.3 8	3 3 23.2 24.6 21.2 1.1 6	2 4 22.1 25.3 16.7 2.8 5
C	2 2 0.3 0.5 0.0 3	2 2 0.4 1.0 0.0 0.3 9	3 2 0.7 1.0 0.0 0.3 24	3 3 0.5 0.9 0.3 0.2 16	3 3 0.5 0.9 0.1 0.2 22	4 4 0.6 1.0 0.1 0.3 10	3 3 0.6 1.0 0.6 0.2 6	3 3 0.6 1.0 0.1 0.3 8
P	2 2 7.5 8.0 6.3 3	2 2 11.0 13.0 8.0 2.0 9	3 2 12.8 18.0 7.0 2.8 24	3 3 14.0 16.6 12.0 1.2 16	3 3 14.0 17.5 11.0 1.5 22	4 4 14.7 19.0 11.7 2.1 10	3 3 14.0 14.5 12.5 0.7 6	2 4 12.8 13.0 12.0 0.4 5
W	2 2 9.8 10.2 9.5 3	2 2 9.1 11.2 5.0 1.7 9	3 2 8.1 12.3 4.0 2.2 24	3 3 6.8 11.6 1.7 2.7 16	3 3 8.0 11.7 3.5 2.3 22	4 4 8.3 10.2 5.6 1.3 10	3 3 7.8 9.7 3.5 2.0 6	3 3 9.5 12.8 8.1 1.7 8
W(X)	7.5- 7.1- 7.7-	8.0- 5.0- 9.5- 1.1	7.1- 3.1- 12.0- 2.1	6.3- 1.7- 11.1- 2.5	7.5- 3.0- 11.1- 2.0	7.7- 5.2- 9.6- 1.5	5.5- 2.6- 8.3- 2.1	7.0- 2.6- 9.7- 2.5
W(Y)	6.3- 6.1- 6.6-	3.8- 1.2 7.3- 2.6	0.7- 4.5 7.3- 3.7	1.5- 3.7 5.0- 2.3	1.8- 1.0 6.8- 2.1	0.8- 3.3 5.0- 2.8	5.0- 1.7- 8.0- 2.2	5.1- 0.1- 9.0- 3.5

LATITUDE 10° - 15° N.

MAY 1965

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		25.6	26.0	25.3	24.8	25.3	25.0	24.5
		27.0	31.0	26.2	28.0	29.0	29.0	27.0
		24.0	24.0	24.0	23.1	23.0	23.2	22.2
		0.8	1.2	0.6	1.2	2.0	1.5	1.2
	0	12	21	16	19	8	11	18
T(W)-T(A)		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		1.0	0.5	0.7	1.1	0.8	0.9	0.0
		3.0	3.0	2.6	3.0	2.5	2.2	2.0
		0.5-	4.0-	0.2-	0.5-	1.0-	1.0-	2.7-
		1.1	1.3	0.8	0.9	1.2	1.0	1.3
	0	11	20	16	19	8	11	18
E(W)-E(A)		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		5.7	4.2	5.3	6.2	7.2	6.5	4.0
		9.0	9.0	11.0	12.8	9.5	10.0	8.3
		1.0	8.1-	0.1-	1.8	5.8	2.0	2.5
		2.0	3.8	3.0	2.7	1.2	2.1	1.5
	0	11	20	16	19	8	11	18
EA		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		27.5	28.5	26.5	25.5	24.7	25.0	25.0
		32.5	41.6	33.5	31.6	29.5	28.8	29.8
		24.5	25.0	22.7	20.5	21.0	21.5	20.0
		2.0	3.5	3.5	3.0	3.2	2.5	2.1
	0	11	20	16	19	8	11	18
C		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		0.5	0.6	0.4	0.6	0.8	0.8	0.7
		1.0	1.0	1.0	1.0	1.0	1.0	1.0
		0.1	0.1	0.1	0.3	0.4	0.3	0.3
		0.3	0.3	0.2	0.3	0.2	0.2	0.3
	0	12	21	16	18	8	11	18
P		2 2	3 3	3 2	3 3	3 3	3 3	4 3
		11.5	12.6	13.2	14.0	13.6	13.6	14.6
		12.7	15.0	15.0	16.8	17.5	15.7	17.0
		8.5	9.0	11.0	11.0	11.0	11.0	11.5
		1.2	1.6	1.2	1.6	2.1	1.5	1.1
	0	11	17	12	17	8	11	18
W		2 2	4 3	3 3	3 3	3 3	3 3	4 3
		8.0	7.1	8.5	8.8	8.0	9.5	8.3
		12.8	11.2	11.5	13.3	12.3	13.8	12.8
		3.0	3.5	3.0	3.0	6.1	6.1	4.0
		3.0	2.2	2.1	2.2	2.0	2.5	2.0
	0	12	21	16	19	8	11	18
W(X)		7.3-	6.8-	8.2-	8.1-	6.7-	6.7-	6.0-
		3.0-	3.5-	3.0-	0.6-	5.7-	1.3-	3.0-
		12.8-	11.2-	10.5-	13.1-	9.3-	10.5-	9.7-
		3.0	2.2	2.0	2.5	1.2	2.5	1.8
W(Y)		1.8-	0.0	1.6-	1.5-	4.0-	6.2-	5.3-
		0.0	5.0	1.3	3.0	2.1-	3.6-	0.1-
		7.0-	5.5-	5.2-	7.3-	8.0-	9.0-	8.3-
		2.1	2.1	1.8	2.8	2.0	1.8	2.0

JUNE 1965

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	27.0	26.2	25.6	24.8	25.0	24.7	25.0	22.2
	32.0	30.0	27.6	26.0	28.0	27.6	28.1	26.5
	26.0	25.0	24.5	23.6	23.5	23.0	22.0	15.5
	1.6	1.1	C.8	0.7	1.0	1.1	1.6	3.5
	11	16	27	14	25	18	14	13
T(W)-T(A)	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	0.3-	0.4	0.7	0.6	C.4	0.8	0.3	0.5
	1.8	2.6	2.3	1.5	1.3	3.3	2.0	2.5
	6.0-	4.0-	1.0-	0.4-	2.0-	2.6-	2.6-	2.7-
	2.0	1.3	0.8	0.6	0.8	1.5	1.2	1.7
	11	16	23	14	25	18	14	13
E(W)-E(A)	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	6.0	6.5	6.0	6.5	6.0	6.1	5.2	4.5
	9.3	11.1	10.6	8.5	8.2	11.7	10.1	9.0
	3.2	3.3	2.7	4.5	3.2	2.0	0.7-	0.1-
	2.0	2.0	1.8	1.2	1.3	2.5	3.1	2.6
	11	16	23	14	25	18	14	13
EA	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	26.7	26.2	26.0	24.2	24.5	24.7	25.0	21.6
	31.0	30.1	31.0	25.8	28.2	28.2	31.2	25.5
	24.6	23.1	23.0	21.8	20.8	21.1	21.2	15.0
	1.5	1.7	2.0	1.0	2.1	2.0	3.3	3.6
	11	16	23	14	25	18	14	13
C	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	0.5	0.4	0.5	0.7	0.8	0.7	0.5	0.7
	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0
	0.1	0.0	0.1	0.4	0.3	0.1	0.1	0.3
	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3
	11	17	27	15	25	18	14	14
P	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	12.8	13.1	13.6	14.2	14.8	14.3	14.0	14.0
	14.5	15.0	16.2	15.5	17.0	16.5	16.5	17.1
	10.6	10.5	11.0	13.0	12.6	12.0	11.0	12.5
	0.9	1.1	1.3	0.7	1.0	1.2	1.5	1.1
	11	17	27	15	25	18	14	14
W	3 2	3 3	3 3	3 2	3 3	3 3	2 3	3 3
	7.0	8.0	9.3	8.5	9.8	8.6	7.2	7.2
	9.7	18.0	12.8	12.6	12.8	12.3	12.8	11.2
	5.6	2.5	5.0	4.5	5.0	5.0	4.0	1.5
	[illegible]	3.6	2.5	2.5	2.0	2.1	2.5	2.8
	11	17	27	15	25	18	14	14
W(X)	6.5-	7.1-	8.2-	7.0-	8.6-	7.5-	5.5-	4.5-
	5.2-	2.1-	3.8-	0.8	4.7-	3.8-	3.0-	4.8
	9.1-	13.6-	12.8-	11.0-	11.0-	12.0-	11.0-	10.5-
	1.0	3.0	2.6	3.0	1.7	2.5	2.1	4.5
W(Y)	2.2-	3.1-	3.6-	4.0-	4.5-	3.5-	4.7-	4.0-
	0.1-	0.0	0.0	0.0	0.9-	0.1-	2.6-	1.1
	3.8-	11.6-	7.6-	6.3-	8.0-	7.0-	6.6-	7.1-
	1.5	2.6	2.3	1.7	1.8	2.0	1.5	2.5

LATITUDE 5° – 10° N.

JULY 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3 26.7 27.6 26.0	3 2 27.0 27.0 27.0		3 3 25.7 27.0 22.6	3 4 26.8 28.7 25.0	4 3 27.0	3 2 26.5 28.1 24.2 1.0	4 4 25.8 27.0 24.2
T(W)-T(A)	4 3 3 1.7 2.3 1.0	3 3 2 1.7 2.1 1.0	0	4 3 3 1.8 6.5 0.5-	2 3 4 2.0 3.7 0.5	1 4 3 1.0	7 3 2 1.8 4.5 0.0 1.2	4 4 4 2.5 5.0 0.5
E(W)-E(A)	4 3 3 9.5 12.2 6.7	3 3 2 7.2 8.0 5.6	0	4 3 3 6.3 10.7 2.7	2 3 4 8.0 8.5 7.5	1 4 3 5.6	7 3 2 6.1 8.5 2.5 2.5	4 4 4 8.0 8.8 6.1
EA	4 3 3 27.3 28.0 26.5	3 3 2 30.1 30.1 30.1	0	4 3 3 28.5 29.8 27.5	2 3 4 29.7 30.8 28.6	1 4 3 30.1	7 3 2 30.0 32.8 27.3 2.0	4 4 4 28.6 30.3 27.5
C	4 3 3 0.4 0.6 0.3	3 3 2 0.6 0.8 0.3	0	4 3 4 0.9 0.9 0.9	2 3 3 1.0	1 4 3 0.0	7 3 2 0.8 1.0 0.4 0.3	4 4 4 0.6 0.9 0.4
P	4 3 3 10.0 11.7 8.6	3	0	3 1 1 11.5	1 3 4 11.0 13.0 9.0	1 4 3 11.7	7 3 2 11.1 13.7 8.5 1.8	4 4 4 10.7 11.7 9.6
W	4 3 3 8.5 10.7 7.6	0 3 2 10.0 11.2 8.1	0	1 3 3 7.1 8.1 5.6	2 3 4 5.0 8.1 2.0	1	7 3 2 4.0 8.7 0.0 2.5	4 4 4 5.7 10.2 2.5
W(X)	4 6.8- 4.8- 10.0-	3 7.6- 6.2- 8.5-	0	3 4.0- 0.1- 6.6-	2 2.5- 1.2 6.2-	0	7 3.0- 0.0 6.1- 1.7	4 5.6- 2.5- 10.2-
W(Y)	4.6- 3.7- 6.0-	6.5- 5.2- 7.3-		1.0 8.1 3.8-	1.7- 1.5 5.2-		1.0 8.1 1.3- 3.0	0.4 1.6 0.1-

AUGUST 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2 27.3 28.0 27.0	3 3 26.8 28.7 25.0 1.0	2 2 27.7 30.5 26.0 1.5	2 4 25.8 29.2 13.0 4.3	3 4 27.0 28.6 24.2 1.3	2 3 27.1 27.6 26.6	3 2 26.6 29.0 23.7	4 3 27.2 30.0 24.0 1.5
T(W)-T(A)	3 2 2 1.6 2.0 1.1	13 3 3 1.6 4.0 0.0 1.0	5 2 2 1.0 2.1 1.6- 1.3	10 2 4 0.7 2.2 1.0- 1.0	8 3 4 1.0 3.3 0.5- 1.1	2 2 3 0.8 1.5 0.0	4 3 2 1.5 3.8 0.5-	15 4 3 0.9 4.0 2.0- 1.2
E(W)-E(A)	3 2 2 8.0 10.0 6.6	13 3 3 7.6 11.0 5.0 1.5	5 2 2 7.5 9.5 5.0 2.0	10 2 4 5.2 8.3 0.8 1.8	8 3 4 5.8 7.0 4.5 0.7	2 2 3 4.5 5.5 3.7	4 3 2 6.6 9.2 3.3	15 4 3 5.5 8.6 2.0- 3.0
EA	3 2 2 29.6 30.5 28.2	13 3 3 29.0 31.5 26.5 1.3	5 2 2 29.7 31.0 27.8 1.1	10 2 4 28.3 31.8 13.3 5.0	8 3 4 29.7 30.5 29.1 0.5	2 2 3 30.7 31.0 30.5	4 3 2 29.5 34.2 27.6	15 4 3 30.3 35.5 27.3 2.2
C	3 2 2 0.8 1.0 0.5	13 3 3 0.8 1.0 0.3 0.3	5 2 2 0.6 0.9 0.4 0.2	10 2 4 0.7 1.0 0.1 0.3	8 3 4 0.8 1.0 0.3 0.2	2 2 3 0.9 1.0 0.8	4 2 2 0.7 1.0 0.0 0.4	15 4 3 0.7 1.0 0.3 0.3
P	3 2 2 8.0 9.6 5.6	13 3 3 8.5 11.0 6.2 1.3	5 2 2 8.2 10.6 5.6 2.0	10 2 4 8.7 15.5 6.2 2.5	8 3 4 9.0 11.0 7.0 1.3	2 2 3 8.1 9.5 7.0	5 2 2 9.5 11.5 7.6 1.5	15 4 3 10.5 12.5 7.0 1.3
W	3 2 3 10.1 15.3 5.0	13 3 3 6.1 12.8 2.5 3.6	5 2 2 6.1 8.7 4.5 1.5	10 2 4 5.5 11.2 0.0 3.1	8 3 3 6.6 11.2 1.0 3.3	2 2 3 2.7 4.0 1.5	5 2 2 6.5 8.1 3.5 1.7	15 4 3 4.8 12.8 1.0 2.7
W(X)	2 9.7- 5.0- 14.5-	12 5.5- 1.2- 12.8- 3.8	5 5.7- 4.5- 7.5- 1.1	10 4.7- 0.0 9.2- 2.6	7 5.3- 1.0- 8.7- 2.6	2 1.5- 1.1- 2.0-	5 1.5- 1.3 4.3- 2.0	14 0.8- 5.0 4.7- 3.2
W(Y)	2.6- 0.0 5.3-	1.0- 4.2 7.5- 2.5	0.3- 1.6 4.3- 2.1	0.3- 8.5 4.0- 3.2	3.0 8.5 0.2- 3.2	2.1 3.5 1.0	4.5 8.0 2.5- 4.1	0.6 12.0 6.7- 4.3

LATITUDE 5° – 10° N.

SEPTEMBER 1963

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)		3 2	3 3	3 5	3 4	5 3	2 3	3 3
		27.1	27.0	26.7	27.0	27.6	26.2	25.5
		31.5	28.7	29.0	29.0	29.0	28.0	27.0
		25.0	26.0	23.7	26.0	26.7	24.1	24.0
		1.3	1.0	1.5			1.0	0.9
	0	17	5	7	4	4	12	10
T(W)-T(A)		3 2	3 3	3 5	3 4	5 3	2 3	3 3
		2.6	2.5	2.0	1.1	0.7	2.1	2.8
		5.0	4.5	5.0	3.0	1.7	4.7	5.0
		1.0-	0.6-	0.9-	1.0-	0.0	0.0	1.0
		1.5	1.7	1.7			1.3	1.0
	0	17	5	7	4	4	12	10
E(W)-E(A)		3 2	3 3	3 5	3 4	5 3	2 3	3 3
		10.2	7.6	8.1	6.6	4.6	7.6	8.0
		15.7	10.7	10.7	7.0	9.3	11.1	10.2
		5.3	4.2	4.6	6.5	0.6	4.5	5.5
		2.7	2.3	2.0			2.0	1.3
	0	17	5	7	4	4	12	10
EA		3 2	3 3	3 5	3 4	5 3	2 3	3 3
		29.2	31.2	29.0	29.2	31.6	29.0	28.5
		31.8	31.8	33.5	31.0	35.0	31.6	30.3
		24.2	30.5	26.5	28.5	27.3	26.0	26.6
		1.8	0.5	2.5			1.6	1.0
	0	17	5	7	4	4	12	10
C		3 2	3 3	3 5	3 4	5 3	2 3	3 3
		0.8	0.7	0.6	0.4	0.6	0.8	0.9
		1.0	1.0	1.0	0.8	0.9	1.0	1.0
		0.4	0.4	0.1	0.0	0.5	0.3	0.1
		0.2	0.2	0.3			0.3	0.3
	0	18	5	7	4	4	12	10
P		3 2	3 3	4 5		5 3	2 3	3 3
		10.5	11.2	9.7		10.0	10.1	10.5
		12.5	13.0	10.5		12.0	13.0	13.5
		8.0	10.6	9.0		8.5	6.6	9.0
		1.0	0.9				2.0	1.1
	0	15	5	3	0	4	12	10
W		3 2	3 2	3 5	3 4	5 3	2 3	3 3
		4.3	7.3	3.8	3.5	4.7	6.1	5.5
		8.1	10.7	7.6	5.0	5.0	12.8	8.1
		0.0	5.0	2.0	2.5	4.0	3.0	2.5
		2.0		1.8			2.8	2.1
	0	16	4	7	4	4	12	10
W(X)		2.2-	0.4	3.0-	3.2-	4.3-	2.5-	1.8-
		7.7	5.8	0.4-	2.0-	3.0-	1.5	2.5
		7.5-	10.7-	5.8-	5.0-	4.7-	7.0-	8.1-
		3.5		1.7			2.3	3.5
W(Y)		0.9	3.5	0.8-	0.4-	2.0-	4.1	2.8
		4.8	5.0	2.0	0.0	1.7-	12.0	7.1
		2.6-	0.1-	5.0-	1.6-	2.6-	3.0-	1.3-
		2.2		2.1			4.1	3.1

OCTOBER 1963

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	3 3	4 1	3 4			3 1	4 2
	29.5	27.3	26.3	27.6			26.6	27.6
	31.0	28.7	28.0	28.5			27.0	31.0
	28.1	24.5	24.7	26.6			26.5	26.0
		1.0		0.5				1.7
	2	18	2	10	C	0	3	8
T(W)-T(A)	2 2	3 3	5 1	3 5			3 1	4 2
	0.9	2.0	2.8	0.6			1.6	0.8
	2.7	4.7	,	1.5			1.6	3.0
	1.0-	0.5		0.2-			1.5	2.0-
		1.0		0.7				1.6
	2	18	1	8	0	0	3	8
E(W)-E(A)	2 2	3 3	5 1	3 5			3 1	4 2
	8.2	8.0	4.3	7.3			7.8	5.7
	11.5	11.5		8.6			11.5	9.1
	5.0	3.6		6.0			5.3	0.3
		2.0		0.9				2.6
	2	18	1	8	C	0	3	8
EA	2 2	3 3	5 1	3 5			3 1	4 2
	32.7	30.5	30.5	26.8			28.8	30.7
	34.8	34.0		30.2			30.5	34.1
	30.7	28.2		27.6			25.7	28.5
		1.6		0.7				2.0
	2	18	1	8	0	0	3	8
C	2 2	3 3	4 1	3 4			3 1	4 2
	1.0	0.8	0.7	0.7			0.8	0.5
	1.0	1.0	1.0	1.0			1.0	1.0
	1.0	0.4	0.4	0.1			0.3	0.1
		0.2		0.3				0.3
	2	18	2	11	C	0	3	9
P	2 2	3 3	4 1	3 4			3 1	4 2
	9.0	9.7	8.6	10.1			9.5	11.0
	11.0	13.0	9.0	12.2			14.0	13.7
	7.0	7.5	8.5	7.5			5.2	9.0
		1.8		1.3				1.6
	2	18	2	11	C	0	3	9
W	2 2	3 3	4 1	3 4			3 1	4 2
	5.5	5.8	5.0	6.5			9.7	5.0
	6.1	8.7	7.1	10.2			11.7	10.2
	5.0	2.5	3.0	0.0			7.1	2.5
		1.6		2.5				2.1
	2	18	2	11	0	0	3	9
W(X)	0.3-	3.6-	4.3-	4.5-			1.5	2.0-
	3.8	2.0	2.6-	0.0			4.0	2.0
	4.3-	6.6-	6.1-	7.7-			1.8-	9.6-
		2.0		2.3				3.5
W(Y)	1.0	0.4-	2.5-	0.8-			9.3	1.7
	4.7	8.1	1.5-	6.5			11.1	5.7
	2.5-	7.7-	3.6-	6.6-			6.7	3.2-
		4.3		4.5				3.2

NOVEMBER 1963

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	28.1	26.8	27.7	27.0	29.6	27.3	26.2	26.3
	30.0	28.0	29.0	27.7	33.6	28.7	27.0	30.0
	27.0	25.1	26.1	26.5	26.5	26.0	25.0	24.0
	1.0	0.9		0.5			0.8	1.6
	10	10	3	6	3	2	8	7
T(W)-T(A)	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	0.6	2.1	0.4	1.2	0.1	1.2	1.3	1.5
	1.7	3.5	0.9	2.2	2.6	3.2	2.6	4.0
	1.1-	1.0	0.0	0.4	3.6-	0.6-	0.0	2.0-
	1.0	0.8		0.8			1.0	1.7
	10	10	3	6	3	2	8	7
E(W)-E(A)	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	8.3	8.5	8.0	7.0	9.0	8.0	4.5	6.6
	10.7	11.7	11.8	9.6	12.2	10.3	6.6	12.3
	6.7	5.7	2.6	5.0	5.5	5.5	3.1	0.9-
	1.1	1.5		1.5			1.0	3.7
	10	10	3	6	3	2	8	7
EA	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	28.7	29.2	28.0	29.5	30.2	29.1	30.1	28.7
	30.5	31.1	30.0	30.5	34.3	30.3	31.8	36.3
	26.5	27.0	25.7	28.0	26.C	28.0	29.0	25.2
	1.1	1.5		0.9			1.0	3.3
	10	10	3	6	3	2	8	7
C	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	0.6	0.8	0.7	0.6	0.4	0.4	1.0	0.8
	0.9	1.0	0.9	1.0	0.6	0.6	1.0	1.0
	0.4	0.6	0.5	0.4	0.3	0.3	0.8	0.0
	0.2	0.2		0.2			0.1	0.3
	10	10	3	6	3	2	8	9
P	4 4	3 2	2 2	4 4	2 3	5 5	3 3	4 3
	8.8	9.0	10.2	11.0	12.0	12.2	10.3	10.5
	11.2	11.0	11.5	11.7	13.0	13.0	12.0	12.5
	6.0	7.6	9.0	10.5	11.0	11.5	8.6	8.0
	1.5	1.0					1.0	1.7
	10	7	2	3	3	2	8	8
W	4 4	3 2	3 1	4 5	2 3	5 5	3 3	4 3
	5.8	8.2	3.5	5.5	5.2	2.7	6.6	5.8
	8.1	12.8	7.6	10.2	8.1	3.0	11.2	11.2
	0.5	4.0	1.5	1.5	2.5	2.5	4.5	0.0
	2.0	2.5					2.7	3.0
	10	10	3	4	3	2	8	9
W(X)	5.2-	7.3-	2.2-	5.1-	1.5-	2.1	5.3-	4.7-
	0.4-	1.1-	1.1	1.3-	0.0	2.5	1.5	0.0
	7.5-	12.6-	7.1-	9.5-	2.6-	2.0	9.7-	8.5-
	1.8	3.5					3.3	2.5
W(Y)	2.0-	0.5-	0.2-	1.5-	5.0-	1.2-	1.3-	1.5-
	0.4	6.5	1.1	0.5-	2.5-	0.4-	4.3	3.8
	6.0-	3.5-	2.6-	3.5-	7.7-	2.2-	5.6-	7.3-
	1.7	3.0					3.1	3.5

DECEMBER 1963

LONGITUDE WEST

	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	27.1	28.0	26.0	27.0	25.8	26.7	25.8	26.3
	30.5	28.5		27.6	28.7	27.0	27.0	28.0
	25.6	27.6		26.5	24.2	26.5	25.0	25.0
	0.9	0.2			1.6		0.7	1.0
	44	9	1	3	5	2	11	16
T(W)-T(A)	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	0.5	0.2	0.5	0.9	1.5	2.5	1.5	1.2
	2.5	1.5		1.6	3.3	3.3	3.0	3.1
	2.2-	0.7-		0.5	1.6-	1.5	1.0-	1.3-
	1.0	0.7			1.8		1.0	1.2
	44	9	1	3	5	2	11	16
E(W)-E(A)	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	6.6	5.7	6.2	7.5	7.0	4.6	4.6	6.5
	11.3	10.2		9.5	8.8	6.5	9.1	12.1
	3.0	3.2		6.1	6.2	2.7	0.6	1.2-
	2.0	2.3			1.0		2.6	3.0
	44	9	1	3	5	2	11	16
EA	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	28.2	30.1	26.3	28.0	27.3	33.7	30.0	28.5
	32.5	32.1		29.7	28.5	34.5	33.1	32.8
	24.2	28.0		26.8	25.0	33.1	27.3	25.5
	1.6	1.3			1.1		1.5	1.8
	44	9	1	3	5	2	11	16
C	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	0.6	0.8	0.3	0.9	0.8	0.9	0.8	0.8
	1.0	1.0		1.0	1.0	1.0	1.0	1.0
	0.1	0.5		0.6	0.6	0.9	0.0	0.5
	0.2	0.2			0.2		0.3	0.2
	44	9	1	3	5	2	12	16
P	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	9.5	7.7	11.2	9.1	9.8	9.0	10.1	11.6
	12.7	8.8		10.5	12.5	9.6	13.7	15.5
	7.0	6.6		6.6	7.6	8.5	0.8	8.0
	1.5	0.9			1.5		3.1	2.0
	44	9	1	3	5	2	12	12
W	4 3	3 2	4 1	2 5	3 3	2 2	3 2	3 3
	7.2	9.0	7.6	7.6	9.0	12.8	9.6	7.0
	9.8	12.3		7.6	10.7	12.8	12.8	11.2
	3.5	6.2		7.6	8.1	12.8	7.1	2.5
	1.3	2.0			0.9		1.8	2.1
	44	9	1	3	5	2	12	16
W(X)	6.2-	8.0-	7.1-	6.1-	8.0-	9.0-	7.7-	5.2-
	2.8-	5.0-		5.8-	7.0-	8.1-	5.5-	2.0-
	9.2-	10.7-		6.6-	10.6-	9.7-	9.7-	8.5-
	1.5	1.7			1.2		1.2	2.0
W(Y)	3.2-	2.1-	2.6-	4.5-	3.0-	9.0-	5.3-	4.0-
	0.3-	1.8		3.8-	1.7	8.3-	2.5-	0.0
	5.7-	7.3-		5.0-	4.3-	9.8-	8.3-	7.7-
	1.1	3.3			2.5		2.0	2.5

LATITUDE 5° – 10° N.

JANUARY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 3	2 4	2 3	3 3	2 2	4 3	3 2
	26.5	27.0	25.6	25.5	25.0	25.6	25.8	26.1
	28.5	29.5	27.0	26.5	27.0	26.5	27.6	29.0
	25.0	25.5	24.2	23.7	23.7	23.1	24.0	24.0
	0.7	0.8		0.9	1.0	1.0	1.0	1.0
	44	21	4	6	6	7	14	24
T(W)-T(A)	4 3	3 3	2 4	2 3	3 3	2 2	4 3	3 2
	0.2	1.0	2.3	1.5	2.2	1.2	0.8	0.6
	2.1	3.3	3.8	2.7	3.3	3.3	3.0	3.3
	1.8-	2.7-	1.0	0.0	0.0	0.5-	1.5-	2.0-
	0.8	1.3		0.9	1.0	1.0	1.2	1.3
	44	21	4	6	6	7	14	24
E(W)-E(A)	4 3	3 3	2 4	2 3	3 3	2 2	3 3	3 2
	5.6	6.6	7.5	6.1	6.0	5.3	5.6	5.0
	9.8	11.6	13.5	10.2	9.5	7.3	8.7	8.2
	2.7	1.6-	4.0	4.3	3.5	3.0	1.0	1.0
	1.3	3.5		2.0	1.8	1.5	2.0	2.0
	44	21	4	6	6	7	12	19
EA	4 3	3 3	2 4	2 3	3 3	2 2	3 3	3 2
	27.5	29.0	28.1	27.2	28.0	28.1	28.0	28.5
	29.8	35.3	31.0	29.1	30.1	29.5	30.1	31.0
	25.1	25.2	22.3	22.1	26.0	25.7	25.5	25.2
	1.2	3.0		2.2	1.3	1.1	1.3	1.5
	44	21	4	6	6	7	12	19
C	4 3	3 3	2 4	2 3	2 3	2 2	4 3	3 2
	0.5	0.8	0.9	0.8	0.8	0.7	0.6	0.7
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.3	0.1	0.8	0.1	0.5	0.1	0.1	0.1
	0.2	0.3		0.3	0.2	0.4	0.2	0.2
	44	26	4	6	7	7	14	24
P	4 3	3 3	2 4	2 3	2 3	2 2	4 3	3 2
	10.0	8.8	9.3	11.0	11.1	11.3	11.5	10.7
	12.3	11.6	11.7	13.7	13.5	13.7	13.7	18.2
	7.7	6.2	8.5	8.5	8.6	9.2	9.0	8.0
	1.0	1.3		1.6	1.5	1.5	1.2	2.1
	42	26	4	6	6	7	14	24
W	4 3	3 3	2 4	2 3	2 3	2 2	4 3	3 2
	8.5	10.2	11.2	8.2	9.8	7.3	8.3	9.0
	13.1	15.3	11.2	11.2	10.2	9.2	11.2	10.7
	4.5	5.0	11.2	2.5	9.2	5.0	6.1	6.6
	2.0	2.2		3.0	0.5	1.5	1.6	0.9
	44	26	4	6	7	6	14	24
W(X)	7.3-	8.5-	10.5-	7.6-	8.1-	6.6-	7.6-	7.5-
	3.7-	4.7-	10.5-	2.1-	7.0-	5.0-	4.2-	5.8-
	11.6-	12.5-	10.5-	10.5-	9.5-	9.2-	11.0-	9.5-
	2.0	2.0		2.8	0.8	1.6	2.0	1.0
W(Y)	4.0-	4.5-	4.0-	3.0-	5.1-	0.3-	2.6-	4.8-
	0.6-	3.3	4.0-	1.2-	1.6-	5.8	0.1-	1.3-
	7.0-	10.0-	4.0-	4.0-	6.6-	3.3-	5.1-	6.0-
	1.3	3.2		0.9	1.7	3.0	1.3	1.2

FEBRUARY 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		25.7	26.0	25.8	25.8	25.0	24.5	24.7
		27.5	28.0	27.0	26.5	26.0	26.0	29.0
		24.6	25.0	25.0	24.5	23.5	21.5	20.0
		0.7	1.0	0.7	0.5	0.7	1.1	1.8
	0	12	5	7	19	15	16	27
T(W)-T(A)		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		1.7	0.1	0.7	0.7	1.3	1.8	1.5
		3.7	1.5	3.1	3.2	3.8	5.0	5.5
		0.5	2.0-	0.7-	1.0-	0.0	0.5	2.0-
		1.0	1.1	1.0	1.2	1.1	1.0	1.6
	0	12	5	7	19	15	16	27
E(W)-E(A)		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		5.6	5.3	4.6	5.8	7.8	5.7	6.1
		8.8	7.5	9.1	13.0	17.6	9.6	10.6
		0.8	3.0	0.8-	2.6	3.0	3.3	2.0
		2.6	1.6	3.0	3.0	4.3	1.8	2.2
	0	12	5	7	19	12	12	27
EA		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		29.1	26.5	28.0	26.7	24.6	26.7	26.0
		32.5	29.5	32.8	30.0	28.5	29.0	31.5
		26.0	24.6	22.8	23.8	20.3	22.0	20.8
		2.0	1.5	3.2	1.5	2.5	2.1	2.8
	0	12	5	7	19	12	12	27
C		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		0.6	0.3	0.6	0.7	0.8	0.9	0.8
		1.0	0.8	1.0	1.0	1.0	1.0	1.0
		0.0	0.0	0.1	0.0	0.1	0.6	0.1
		0.3	0.3	0.3	0.3	0.2	0.1	0.2
	0	16	5	7	18	14	18	28
P		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		8.5	10.8	10.6	10.7	11.5	11.1	10.3
		12.0	12.6	12.5	14.8	15.0	13.6	16.2
		6.2	8.6	8.0	7.0	7.5	7.0	6.6
		1.5	1.3	1.5	2.3	2.3	1.6	2.2
	0	16	5	7	19	14	13	27
W		3 3	4 2	3 4	3 4	4 3	3 3	3 3
		10.1	7.8	8.2	8.8	9.2	8.3	7.8
		12.8	10.2	10.2	12.8	12.8	12.8	11.7
		5.0	6.6	3.0	6.2	4.5	5.0	0.0
		2.0	1.1	2.3	2.1	2.5	2.5	2.2
	0	16	5	7	19	15	18	28
W(X)		8.5-	6.1-	5.5-	7.2-	7.2-	6.2-	4.6-
		4.3-	3.7-	1.5-	2.3-	2.2-	0.0	0.1
		12.0-	9.5-	9.5-	12.0-	12.0-	12.0-	9.5-
		2.0	2.0	3.5	2.5	3.0	2.8	2.6
W(Y)		4.6-	4.3-	5.0-	4.3-	5.0-	4.2-	4.0-
		1.7	2.6-	2.6-	1.3-	0.1-	4.2	9.2
		9.8-	6.6-	8.1-	9.8-	9.8-	9.8-	11.7-
		3.0	1.2	2.0	2.1	2.3	3.1	4.5

LATITUDE 5°– 10° N.

MARCH 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2 27.2 28.5 25.2 4	3 3 26.3 28.0 25.0 0.9 18	3 2 26.5 30.0 25.0 1.1 18	3 4 25.5 27.0 24.0 0.9 8	5 3 26.3 26.6 26.0 3	3 1 26.0 26.6 25.0 3	3 2 25.7 27.1 25.0 0.8 6	4 3 25.3 29.0 23.7 1.5 14
T(W)-T(A)	3 2 0.3 1.6 0.6- 4	3 3 0.9 2.1 1.3- 0.9 18	3 2 0.0 1.1 2.0- 0.8 16	3 3 0.7 1.7 1.0- 1.0 5	5 3 0.1- 0.1 0.2- 3	3 1 0.8 1.2 0.4 3	3 2 0.6 2.0 0.6- 0.9 6	4 3 0.1 1.8 5.0- 1.6 14
E(W)-E(A)	3 2 6.2 7.5 4.0 4	3 3 6.2 11.0 0.8- 3.1 18	3 2 3.0 4.5 0.5- 1.5 16	3 3 3.7 6.0 1.2- 2.7 5	5 3 5.5 5.7 5.5 3	3 1 4.3 5.5 3.5 3	3 2 6.3 9.2 4.3 1.5 6	4 3 3.6 7.6 3.5- 2.5 14
EA	3 2 28.5 30.8 26.5 4	3 3 27.8 33.5 24.8 2.5 18	3 2 29.3 33.2 26.3 2.0 16	3 3 29.0 32.8 26.1 2.2 5	5 3 26.6 26.8 26.2 3	3 1 28.7 30.0 26.6 3	3 2 26.0 27.5 23.5 1.5 6	4 3 26.7 31.5 22.0 2.1 14
C	3 2 0.6 0.9 0.3 0.2 5	3 3 0.5 1.0 0.0 0.4 18	3 2 0.7 1.0 0.3 0.3 20	3 4 0.9 1.0 0.4 0.2 10	5 3 0.7 0.9 0.6 3	3 1 0.9 1.0 0.8 3	3 2 0.7 1.0 0.3 0.3 6	4 3 0.6 0.9 0.3 0.2 14
P	3 2 11.0 13.0 9.2 4	3 3 10.3 13.5 7.6 1.5 18	3 2 9.8 12.5 8.0 1.1 17	3 4 10.6 15.5 7.6 2.6 8	5 3 10.5 11.5 9.0 3	3 1 10.1 12.5 8.6 3	3 2 10.6 11.7 8.6 1.0 6	4 3 10.6 14.0 6.0 2.1 14
W	3 2 5.6 10.2 0.0 3.3 5	3 3 9.5 14.3 4.5 2.2 18	3 2 7.8 10.2 4.0 1.5 20	3 4 9.0 13.8 5.0 2.3 10	5 3 9.2 11.7 8.0 3	3 1 11.2 12.8 10.2 3	3 2 8.5 10.2 6.1 1.3 6	4 3 7.5 10.7 3.0 2.2 14
W(X)	4.7- 0.0 8.8- 3.0	8.2- 4.2- 13.5- 2.2	7.2- 3.5- 10.0- 1.6	7.5- 3.0- 13.0- 2.5	9.0- 7.5- 11.5-	8.5- 7.7- 9.7-	5.5- 2.3- 8.0- 2.3	5.5- 2.2- 8.0- 1.5
W(Y)	3.0- 0.0 5.1- 1.7	3.5- 2.0 7.3- 2.8	2.5- 0.1- 5.2- 1.5	4.8- 1.7- 7.0- 1.1	0.6 2.6 2.1-	7.3- 6.6- 8.3-	6.0- 4.6- 7.5- 1.0	5.0- 0.1- 8.2- 2.3

APRIL 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3 26.8 28.6 25.6 0.8 7	3 2 26.1 29.2 25.0 1.1 20	4 3 26.1 27.0 25.0 0.7 5	3 4 26.2 27.0 25.2 0.6 8	4 4 26.8 28.0 26.3 4	3 2 26.6 27.0 26.0 4	4 3 25.5 28.0 24.2 1.0 12	3 2 26.0 28.0 24.2 1.0 17
T(W)-T(A)	4 3 0.7 2.1 0.5- 0.9 7	3 2 1.5 3.1 0.5- 1.0 20	4 3 0.8 2.0 0.0 0.7 5	3 4 0.4 1.7 1.0- 0.9 8	4 4 0.5- 1.0 2.0- 4	3 2 0.4 1.0 0.0 4	4 3 0.3 3.3 2.0- 1.2 12	3 2 1.0 2.7 1.5- 1.1 17
E(W)-E(A)	4 3 5.7 9.6 2.2 2.8 7	3 2 4.7 8.0 1.6 1.6 20	4 3 4.2 7.3 0.6 2.3 5	3 4 4.5 8.6 2.7 1.6 8	4 4 4.5 9.3 2.6 4	3 2 2.8 3.1 2.5 4	4 3 2.6 5.6 0.6- 2.0 12	3 2 4.1 8.5 0.1- 2.2 17
EA	4 3 29.0 31.5 27.5 1.1 7	3 2 30.0 32.8 25.7 1.5 20	4 3 29.3 31.0 26.2 1.6 5	3 4 28.3 30.3 25.1 1.5 8	4 4 27.7 28.8 25.5 4	3 2 30.7 32.8 29.6 4	4 3 28.5 32.1 25.8 1.7 12	3 2 29.7 33.5 27.0 1.5 17
C	4 3 0.7 1.0 0.3 0.3 7	3 2 0.8 1.0 0.5 0.2 20	4 3 0.7 1.0 0.3 0.3 5	3 4 0.7 1.0 0.4 0.2 8	4 4 0.6 0.8 0.3 4	3 2 0.6 1.0 0.3 4	4 3 0.9 1.0 0.5 0.2 16	3 2 0.8 1.0 0.4 0.2 17
P	4 3 11.5 13.0 10.0 1.0 7	3 2 10.5 12.5 9.0 0.9 20	4 3 7.8 12.7 6.0 2.5 5	3 4 11.7 14.1 10.2 1.1 8	4 4 12.0 13.6 9.2 4	3 2 9.6 11.5 8.5 4	4 3 10.0 13.0 6.2 1.8 16	3 2 10.5 15.0 7.0 2.2 17
W	4 3 6.2 10.2 2.5 2.1 7	3 2 8.3 13.8 2.5 3.6 20	4 3 6.2 11.2 0.5 3.8 5	3 4 8.5 12.3 4.5 2.5 8	4 4 9.5 12.3 6.6 4	3 2 8.1 9.2 6.6 4	4 3 8.1 12.8 5.0 1.7 15	3 2 7.5 12.8 4.0 2.2 17
W(X)	6.0- 2.5- 10.0- 2.2	7.7- 2.3- 13.0- 3.3	4.6- 0.4- 10.5- 3.5	7.5- 2.8- 11.5- 2.6	9.0- 6.2- 10.5-	7.0- 5.7- 8.0-	6.6- 3.8- 9.7- 1.6	6.3- 1.3 12.0- 2.8
W(Y)	1.3- 0.0 3.2- 1.2	1.7- 4.2 7.8- 3.0	3.7- 0.3- 6.0- 2.0	4.0- 2.5- 5.0- 0.7	0.5- 2.8 6.2-	4.1- 3.3- 4.6-	4.6- 2.5- 8.3- 1.2	1.7- 4.6 6.0- 3.0

LATITUDE 5° - 10° N.

MAY 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	4 2	3 3	3 3	3 3	4 4	3 3	3 3	3 3	
	26.8	26.2	26.8	26.7	26.5	25.1	25.5	26.0	
	26.6	27.0	30.0	29.7	27.6	26.0	27.5	28.1	
	25.5	25.0	25.1	25.5	25.5	24.6	24.1	24.5	
	0.6	0.8	1.2	1.0	0.6	0.4	1.0	1.0	
	26	11	10	18	9	5	10	16	
T(W)-T(A)	4 2	3 3	3 3	3 3	4 4	3 3	3 3	3 3	
	0.4	1.8	0.6	0.5	0.4	1.5	1.0	1.0	
	2.5	4.0	2.2	2.0	1.5	2.5	3.0	4.0	
	1.3-	0.5	2.0-	2.7-	0.9-	1.0	1.5-	0.9-	
	0.8	1.0	1.0	1.0	0.8	0.6	1.1	1.1	
	26	11	10	18	9	5	10	16	
E(W)-E(A)	4 3	3 3	3 2	3 3	4 4	3 3	3 3	3 3	
	4.2	5.3	3.2	5.1	4.5	5.3	5.5	6.1	
	10.0	9.0	7.0	8.0	6.0	7.5	8.0	9.1	
	2.0	0.5	0.9-	0.6	2.8	2.5	3.0	1.1	
	1.6	2.3	2.5	1.7	1.0	1.6	1.6	2.1	
	24	8	9	18	9	5	10	16	
EA	4 3	3 3	3 2	3 3	4 4	3 3	3 3	3 3	
	30.0	30.5	31.1	29.0	28.8	27.5	27.3	27.7	
	32.1	34.5	36.3	31.5	29.6	29.0	29.0	33.6	
	27.6	25.8	27.8	26.1	27.7	26.0	24.5	23.6	
	1.0	2.3	2.6	1.3	0.5	1.0	1.5	2.5	
	24	8	9	18	9	5	10	16	
C	4 2	3 3	3 3	3 3	4 4	3 3	3 3	3 3	
	0.8	0.8	0.8	0.6	0.9	0.9	0.7	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.3	0.4	0.4	0.0	0.5	0.8	0.1	0.3	
	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.3	
	26	12	10	18	9	5	10	16	
P	4 2	3 3	3 3	3 3	4 4	3 3	3 3	3 3	
	9.8	10.1	10.6	9.3	11.1	11.0	11.0	11.7	
	11.7	12.0	13.5	13.0	15.0	13.0	12.0	14.0	
	8.0	8.5	7.7	0.8	8.5	8.5	9.5	9.2	
	0.9	1.1	2.0	2.3	2.3	1.3	0.9	1.5	
	23	12	10	18	9	5	11	16	
W	4 2	3 3	3 3	3 3	4 4	4 3	3 3	3 3	
	5.0	7.0	5.0	6.8	6.6	5.8	5.8	6.8	
	8.1	10.2	9.2	10.2	9.7	8.1	9.2	10.7	
	2.0	2.0	2.5	2.5	1.0	2.5	1.0	0.0	
	1.7	2.7	2.0	1.7	2.5		2.7	3.0	
	26	12	10	18	8	4	11	16	
W(X)	4.3-	6.5-	4.7-	6.5-	5.1-	4.7-	3.0-	3.8-	
	0.4-	1.8-	2.3-	2.3-	1.0	2.1-	1.6	0.1	
	8.0-	9.5-	8.6-	10.0-	8.1-	6.2-	7.0-	8.1-	
	1.7	2.5	2.0	1.7	2.8		2.8	3.1	
W(Y)	0.6-	1.5-	0.8-	1.5-	0.6-	2.6-	3.2-	0.6-	
	7.0	3.0	2.2	1.0	3.8	1.2	3.8	9.2	
	3.6-	3.5-	3.1-	4.2-	9.1-	5.2-	9.0-	9.2-	
	2.5	2.0	1.7	1.5	3.8		3.6	5.5	

JUNE 1964

	LONGITUDE WEST								
	170	165	160	155	150	145	140	135	130
T(A)	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	27.8	27.2	26.5	26.3	26.7	26.6	26.6	26.6	
	30.0	31.0	28.7	29.2	30.5	27.6	28.1	31.0	
	26.7	24.5	24.6	24.6	24.2	24.5	23.7	23.0	
	1.0	1.5	1.0	1.1	1.6	1.0	1.0	1.6	
	6	28	12	11	16	7	17	22	
T(W)-T(A)	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	0.4	0.7	1.1	1.0	1.0	0.6	0.6	0.6	
	1.6	3.1	3.6	3.0	4.1	2.2	3.8	3.0	
	1.7-	1.7-	0.3-	0.5-	2.7-	0.3-	1.5-	3.2-	
	1.0	1.1	1.2	0.9	1.8	0.8	1.1	1.5	
	6	28	12	11	16	7	17	22	
E(W)-E(A)	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	8.5	6.3	6.0	6.0	7.2	6.8	5.7	6.3	
	10.7	14.7	10.5	8.0	11.0	7.7	8.0	11.8	
	5.6	3.6	3.3	3.1	4.5	4.5	3.0	2.0	
	1.5	2.2	1.8	1.3	1.8	1.0	1.3	2.5	
	6	28	12	11	16	7	17	22	
EA	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	27.5	29.3	28.8	28.2	27.8	27.0	28.2	27.6	
	29.3	31.0	31.0	30.0	32.8	28.0	31.8	31.0	
	25.1	26.5	26.7	26.8	26.0	26.2	26.0	23.0	
	1.5	1.1	1.0	1.0	1.5	0.6	1.5	2.1	
	6	28	12	11	16	7	17	22	
C	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	0.7	0.7	0.9	0.9	0.8	0.8	0.6	0.8	
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
	0.1	0.0	0.0	0.8	0.3	0.4	0.1	0.4	
	0.4	0.3	0.3	0.1	0.2	0.2	0.3	0.2	
	6	28	12	11	17	7	17	22	
P	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	10.7	10.5	10.5	10.8	11.8	12.2	12.6	11.1	
	13.0	12.7	12.6	12.5	13.0	13.7	15.0	14.7	
	6.5	6.6	8.7	9.5	10.0	10.5	9.5	7.1	
	2.2	1.6	1.2	0.9	0.9	1.0	1.6	2.2	
	6	27	10	11	16	7	15	22	
W	1 2	3 3	3 2	3 4	3 3	2 3	3 3	3 3	
	6.0	6.6	7.2	5.8	6.5	5.0	3.8	5.0	
	7.6	10.2	13.3	8.1	10.2	6.1	8.1	9.2	
	0.0	0.0	4.5	2.5	2.5	3.0	0.0	0.0	
	2.7	2.2	2.1	2.1	1.6	1.0	2.2	2.2	
	6	28	12	11	17	7	17	22	
W(X)	4.5-	6.0-	6.3-	5.1-	5.2-	3.0-	2.3-	3.0-	
	0.0	0.0	1.5-	2.3-	2.0-	2.1-	4.3	4.0	
	7.2-	10.2-	10.1-	8.1-	8.8-	4.5-	8.0-	8.6-	
	2.7	2.1	2.2	2.1	1.5	1.0	2.7	3.2	
W(Y)	3.2	1.5-	2.5-	0.5	0.5-	3.3	0.7-	0.2-	
	7.1	3.0	0.0	7.1	5.8	5.7	3.8	5.2	
	0.0	5.2-	8.6-	4.0-	6.0-	0.0	4.2-	5.0-	
	2.0	2.5	2.5	2.6	3.8	2.2	2.5	3.3	

LATITUDE 5° - 10° N.

JULY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3	3 2	3 3	3 4	3 3	2 2	3 2	3 3
	26.3	26.7	26.0	26.7	27.0	25.3	26.5	26.5
	27.0	29.0	29.0	29.0	29.5	26.8	28.0	31.0
	26.0	22.0	24.0	25.0	26.0	23.0	24.5	24.0
		1.3	1.3	1.0	1.2	1.0	0.9	1.5
	3	22	11	22	7	12	19	27
T(W)-T(A)	2 3	3 2	3 3	3 4	3 3	2 2	3 2	3 3
	3.3	1.3	1.6	1.0	0.8	1.6	1.5	1.6
	4.0	5.5	3.0	4.0	2.7	4.7	3.1	6.0
	3.0	1.1-	0.5-	1.0-	0.7-	0.0	0.0	3.2-
		1.3	1.0	1.2	1.0	1.2	1.0	2.0
	3	22	11	22	7	11	19	27
E(W)-E(A)	2 3	3 2	3 3	3 4	3 3	2 2	3 2	3 3
	11.1	6.7	6.5	7.5	8.0	6.7	8.5	8.0
	12.5	11.8	12.2	11.7	13.5	11.8	12.1	13.8
	9.5	0.5	3.5	5.1	4.6	2.0	4.7	0.6
		3.0	2.7	2.0	3.2	3.2	1.6	3.0
	3	22	11	22	7	11	19	27
EA	2 3	3 2	3 3	3 4	3 3	2 2	3 2	3 3
	28.1	29.0	28.5	27.6	27.1	27.5	27.0	28.0
	30.2	35.3	30.0	30.2	28.7	30.5	29.7	35.0
	25.8	25.2	27.5	25.2	23.6	24.0	24.5	23.6
		2.1	0.7	1.1	1.6	2.1	1.3	2.5
	3	22	11	22	7	11	19	27
C	2 3	3 2	3 3	3 4	3 3	2 2	3 3	3 3
	0.5	0.7	0.9	0.8	0.6	0.8	0.6	0.6
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.3	0.3	0.8	0.0	0.1	0.3	0.0	0.0
		0.2	0.1	0.3	0.3	0.3	0.3	0.3
	3	22	11	22	7	12	20	27
P	2 3	3 2	3 3	3 4	3 3	2 2	3 3	3 3
	8.8	9.8	11.2	11.1	12.2	11.3	12.0	12.1
	9.6	15.5	13.0	13.0	15.0	13.7	14.7	14.0
	8.0	7.5	8.5	8.5	9.0	8.1	7.5	10.1
		1.7	1.5	1.0	2.0	1.6	1.7	1.0
	3	22	11	19	7	12	17	22
W	2 3	3 2	3 3	3 4	3 3	2 2	3 3	3 3
	5.2	8.1	4.5	5.3	5.5	5.1	4.5	3.3
	6.1	13.8	7.6	10.2	8.1	7.6	8.1	8.1
	4.5	3.0	1.5	2.0	2.0	1.5	0.0	0.0
		3.1	1.6	2.1	2.1	2.1	1.8	2.0
	3	22	11	22	7	9	18	27
W(X)	4.5-	7.1-	1.3-	3.5-	3.2-	2.1-	0.1	0.2-
	3.0-	1.7-	2.8	0.5	1.2	4.3	5.0	6.7
	5.7-	13.8-	7.1-	10.0-	6.3-	5.0-	4.1-	3.8-
		3.1	2.5	2.5	2.5	2.8	2.2	2.2
W(Y)	0.2-	0.3	2.1	2.0	3.6	2.7	3.1	1.1
	3.5	10.5	5.2	7.5	6.0	7.1	8.0	7.6
	2.1-	6.6-	3.5-	2.5-	0.6	3.2-	3.0-	3.8-
		3.8	3.2	3.1	2.0	3.2	3.0	2.8

AUGUST 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	3 3	2 3	3 3	2 4	2 3	4 2	4 3
	27.3	26.8	26.7	26.2	26.6	26.1	26.6	25.7
	28.5	29.0	28.0	28.5	28.7	28.5	29.0	28.5
	26.5	25.2	25.0	25.0	25.0	24.0	24.0	23.1
	0.7	0.9	1.0	1.0	1.0	1.5	1.0	1.2
	10	31	6	12	12	6	15	33
T(W)-T(A)	2 2	3 3	2 3	3 2	2 4	2 3	4 2	4 3
	0.4	0.8	1.1	0.8	0.9	0.7	0.4	1.3
	1.1	4.2	4.0	2.0	3.3	3.0	3.0	5.0
	1.0-	2.3-	0.2-	2.0-	1.0-	1.3-	2.0-	1.0-
	0.7	1.2		1.1	1.3	1.5	1.1	1.2
	10	31	4	9	12	6	15	33
E(W)-E(A)	2 2	3 3	2 3	3 2	2 4	2 3	4 2	4 3
	7.2	6.5	4.5	5.0	7.2	6.0	6.1	5.8
	10.3	11.7	6.5	8.1	9.6	8.8	8.7	8.5
	3.5	2.0	0.6	0.9	5.5	3.6	2.5	2.5
	1.8	2.1		1.8	1.1	1.7	1.8	1.5
	10	31	4	9	12	6	15	33
EA	2 2	3 3	2 3	3 2	2 4	2 3	4 2	4 3
	27.7	28.2	30.7	28.5	27.3	27.0	27.5	28.0
	32.1	31.5	35.0	32.5	29.2	29.7	31.0	32.8
	24.5	24.5	28.0	24.2	25.5	24.7	24.3	25.2
	2.2	1.5		2.0	1.2	1.6	1.5	1.6
	10	31	4	9	12	6	15	33
C	2 2	3 3	2 3	3 3	2 4	2 3	4 2	4 3
	0.6	0.7	0.8	0.7	0.6	0.6	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0
	0.0	0.0	0.3	0.0	0.1	0.4	0.0	0.3
	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.2
	10	30	8	15	12	6	15	34
P	2 2	3 3	2 3	3 3	2 4	2 3	4 2	4 3
	10.6	10.5	11.3	10.7	11.8	12.6	11.5	11.5
	12.7	14.0	12.6	15.0	14.6	14.2	15.0	15.5
	8.6	7.0	9.6	8.0	9.0	11.0	9.0	8.0
	1.3	1.5	1.0	1.8	2.0	1.1	1.7	2.0
	10	31	8	15	12	6	14	34
W	1 2	3 3	2 3	3 3	2 4	2 3	4 2	4 3
	5.8	4.7	5.5	6.2	7.6	5.6	6.0	5.5
	8.6	8.1	7.6	10.7	10.2	9.2	10.2	10.2
	2.0	0.0	3.0	2.0	3.5	3.5	0.0	0.0
	2.7	2.3	1.7	2.7	2.2	2.1	2.8	2.6
	6	31	8	11	12	6	15	34
W(X)	4.5-	2.8-	4.0-	4.5-	4.2-	3.5-	1.2-	1.0
	1.7-	3.0	1.7-	1.7	0.1-	0.9-	2.6	6.6
	7.5-	7.7-	6.6-	8.6-	8.5-	7.0-	4.1-	5.3-
	2.1	2.7	1.5	3.2	2.7	2.0	2.0	3.2
W(Y)	3.5	1.8	2.0	1.5	5.5	4.2	5.3	4.2
	5.1	7.5	4.8	6.8	9.0	6.2	10.2	9.5
	1.0	4.0-	6.2-	3.6-	0.7-	2.2	0.0	0.9-
	1.7	3.0	3.2	3.6	2.3	1.5	2.8	2.7

LATITUDE 5° - 10° N.

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LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	27.0	26.6	26.0	26.5	26.3	26.0	25.7	25.3
	29.0	30.0	28.0	28.0	28.1	28.1	27.6	27.0
	26.0	24.0	24.0	25.0	24.2	24.0	24.0	24.0
	1.0	1.2	1.5	0.9	1.0	1.3	1.1	0.8
	8	29	6	15	16	9	14	17
T(W)-T(A)	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	1.0	1.0	1.3	1.0	0.7	0.8	1.5	1.6
	2.0	4.0	3.0	2.1	2.7	3.5	4.0	3.0
	1.0-	1.7-	0.9-	0.4-	1.5-	1.5-	0.6-	0.0
	1.0	1.2	1.5	0.8	1.2	1.5	1.2	0.9
	8	29	6	15	16	9	14	17
E(W)-E(A)	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	6.8	6.0	6.3	6.0	5.7	5.1	7.0	6.5
	7.8	8.7	9.0	8.8	9.8	8.0	11.6	8.7
	5.2	4.0	4.0	3.8	1.5	2.8	4.6	3.1
	0.6	1.1	1.5	1.2	2.1	1.7	1.7	1.6
	8	29	6	15	16	9	14	17
EA	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	29.0	29.0	28.0	28.2	28.0	27.8	27.1	27.2
	30.5	33.1	29.5	30.0	30.0	30.0	30.2	30.2
	27.5	26.5	26.0	26.0	25.0	25.6	24.2	23.8
	1.0	1.5	1.0	0.9	1.3	1.5	1.7	1.5
	8	29	6	15	16	9	14	17
C	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	0.6	0.7	0.9	0.8	0.6	0.6	0.6	0.8
	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0
	0.1	0.3	0.8	0.1	0.3	0.3	0.1	0.3
	0.4	0.3	0.1	0.3	0.2	0.3	0.3	0.2
	8	26	6	15	16	9	14	17
P	2 2	3 3	3 2	3 4	3 3	3 3	2 3	2 3
	11.1	9.7	10.2	11.3	11.C	11.6	12.0	10.5
	17.0	12.1	12.5	13.5	15.0	13.5	14.7	14.0
	7.5	6.6	8.5	9.0	9.0	9.0	10.0	7.5
	2.7	1.3	1.2	1.1	1.6	1.2	1.3	1.7
	8	29	6	15	16	9	13	17
W	2 2	3 3	2 2	3 4	3 3	3 3	2 3	2 3
	4.2	6.7	6.0	4.8	6.5	5.5	6.1	5.6
	7.1	12.8	7.6	10.2	10.2	12.3	13.3	12.8
	0.0	1.5	4.5	1.5	2.5	1.5	2.5	0.0
	2.5	3.0	1.1	2.6	2.5	3.2	3.0	3.5
	8	22	5	12	15	9	14	16
W(X)	3.5-	5.1-	4.5-	3.8-	2.0-	2.7-	2.1-	0.2-
	0.0	0.9-	1.5-	1.2-	8.8	0.5	0.9	3.7
	5.6-	9.7-	7.6-	7.0-	6.5-	8.0-	10.2-	3.6-
	2.2	2.3	2.0	1.7	4.0	2.7	2.6	2.0
W(Y)	0.5	1.2	3.1	2.5	1.0	4.5	5.0	4.0
	4.5	9.7	5.0	8.8	8.6	9.3	12.5	12.8
	4.8-	8.6-	0.1-	2.2-	8.0-	1.5	0.1-	9.5-
	2.5	4.5	1.7	2.6	5.1	2.3	3.0	4.8

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LONGITUDE WEST

170 165 160 155 150 145 140 135 130

T(A)	3 3	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	26.6	26.5	26.0	27.0	26.C	27.0	26.0	25.8
	28.0	29.5	28.2	29.2	28.1	31.0	27.0	27.5
	25.0	23.7	21.7	25.3	24.0	25.0	23.7	22.6
	0.9	1.0	1.5	1.0	0.9	1.6	1.0	1.1
	8	36	14	32	16	7	15	16
T(W)-T(A)	3 2	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	1.5	1.2	0.9	0.4	1.5	0.2-	1.2	1.2
	3.0	4.3	3.3	2.1	3.1	2.0	3.8	4.3
	0.1	2.3-	1.6-	1.0-	0.0	3.2-	0.0	1.0-
	1.0	1.3	1.2	0.8	0.9	1.7	1.0	1.5
	7	36	14	32	16	7	15	16
E(W)-E(A)	3 2	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	7.7	6.0	4.8	6.1	6.5	6.5	8.5	8.8
	11.2	11.1	8.0	10.3	11.5	11.3	12.5	14.0
	3.5	0.5	1.8-	1.2	4.0	0.6	4.2	5.6
	2.6	2.2	2.1	2.2	1.8	3.5	2.7	3.0
	7	36	14	32	16	7	15	16
EA	3 2	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	28.0	29.0	28.5	28.5	27.8	26.6	25.7	25.1
	29.8	33.2	31.6	32.6	29.5	29.0	28.2	28.0
	26.3	25.7	25.3	24.8	22.0	23.5	23.0	21.7
	1.2	1.5	1.3	2.2	1.7	1.8	1.5	1.8
	7	36	14	32	16	7	15	16
C	3 3	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	0.9	0.8	0.9	0.5	0.6	0.5	0.7	0.5
	1.0	1.0	1.0	1.0	1.0	0.8	1.0	1.0
	0.8	0.3	0.3	0.1	0.0	0.3	0.3	0.3
	0.1	0.2	0.2	0.2	0.3	0.1	0.3	0.3
	8	36	14	33	15	7	15	17
P	3 3	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	12.7	10.5	11.2	11.2	12.3	12.8	12.1	12.5
	15.5	14.0	13.2	15.0	15.0	15.0	15.5	17.1
	9.0	7.5	9.3	7.5	7.5	11.0	8.0	8.5
	1.8	1.7	1.2	1.5	2.1	1.3	2.0	2.3
	8	36	14	33	16	7	15	17
W	3 3	3 3	3 3	3 3	4 4	4 2	3 3	3 3
	3.7	5.2	5.0	5.5	6.1	3.5	5.0	5.1
	7.6	12.8	9.7	8.8	10.2	6.1	8.1	8.1
	0.0	0.0	0.0	0.0	1.5	1.0	1.5	0.0
	2.1	2.7	3.5	2.5	2.0	2.0	1.6	2.1
	8	36	13	33	16	6	14	17
W(X)	2.0-	4.5-	4.0-	4.0-	5.3-	2.5-	2.5-	3.2-
	1.5	0.0	0.3	1.3	1.2-	0.9	1.5	0.0
	7.6-	9.8-	9.5-	8.5-	10.0-	6.0-	7.6-	6.2-
	2.8	2.5	3.5	2.8	2.2	2.0	2.5	1.8
W(Y)	0.6	1.0	0.1-	0.7	0.1	1.5	2.1	0.8
	4.5	11.0	7.3	8.0	7.6	5.7	6.0	5.0
	2.2-	2.8-	4.3-	5.5-	3.0-	0.0	5.2-	7.2-
	2.3	2.5	3.1	3.3	3.0	2.0	3.1	4.0

LATITUDE 5° - 10° N.

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 1 27.5 28.0 27.0 2	3 3 26.3 27.6 25.1 0.7 13	4 2 26.3 27.0 26.0 3	3 3 25.5 28.0 23.3 1.0 22	4 3 24.3 25.5 23.7 0.5 9	4 3 24.3 26.0 22.5 1.0 9	4 3 25.5 27.0 24.0 0.9 23	3 3 25.3 27.0 23.7 1.0 17
T(W)-T(A)	2 1 1.0 2.0 0.0 2	3 3 1.6 3.0 0.5 0.8 13	4 2 0.5 1.0 0.0 3	3 3 1.6 4.7 1.5- 1.2 22	4 3 1.8 3.8 0.8 0.9 9	4 3 1.2 3.0 0.1- 1.0 9	4 3 1.2 3.3 0.5- 1.0 23	3 3 1.7 4.0 0.0 1.1 17
E(W)-E(A)	2 1 9.1 9.8 8.5 2	3 3 7.0 8.7 2.5 1.5 13	4 2 5.3 7.2 2.8 3	3 3 6.6 11.8 1.8 2.1 22	4 3 4.5 5.5 3.1 0.7 9	4 3 4.3 8.0 1.6 2.0 9	4 3 5.0 11.1 0.1- 2.7 23	3 3 6.0 11.8 2.0 2.8 17
EA	2 1 27.3 27.7 27.0 2	3 3 28.7 31.0 26.5 1.1 13	4 2 27.7 28.6 26.3 3	3 3 27.5 32.5 23.6 1.8 22	4 3 27.6 29.5 25.8 1.1 9	4 3 26.6 28.0 25.1 1.0 9	4 3 28.0 32.8 22.7 2.0 23	3 3 27.6 29.8 23.6 1.8 17
C	2 1 0.3 0.3 0.3 2	3 3 0.7 1.0 0.3 0.3 12	4 2 0.8 1.0 0.8 3	3 4 0.8 1.0 0.1 0.3 21	4 3 0.9 1.0 0.6 0.1 9	4 3 1.0 1.0 0.9 0.0 9	4 3 0.7 1.0 0.1 0.2 22	3 3 0.7 1.0 0.1 0.3 17
P	2 1 9.3 9.6 9.0 2	3 3 8.2 9.5 6.7 1.0 13	4 2 9.3 9.6 9.0 3	3 3 10.0 13.5 7.0 1.5 22	4 3 11.5 13.5 10.5 0.8 9	4 3 10.8 12.0 8.5 1.1 8	4 3 11.5 15.5 8.5 1.7 23	3 3 11.3 14.0 8.5 1.5 17
W	2 1 4.2 5.0 3.5 2	3 3 9.0 13.8 4.0 2.2 13	4 2 4.2 5.0 2.5 3	3 3 6.3 12.8 3.0 2.6 20	4 3 7.2 12.8 3.2 2.8 9	5 3 7.0 12.8 0.0 5.2 6	4 3 7.5 10.2 4.0 2.1 21	3 3 8.0 15.3 2.5 3.5 17
W(X)	4.0- 3.3- 4.8-	8.1- 3.8- 13.0- 2.0	2.8- 2.0- 3.2-	5.5- 0.5- 12.8- 2.8	6.8- 3.0- 12.0- 2.7	6.5- 0.0 12.0- 4.8	5.8- 1.3- 9.5- 2.8	6.8- 0.9- 14.5- 4.0
W(Y)	1.3 1.6 1.1	0.2- 6.8 7.8- 4.0	2.0- 1.5 4.0-	0.3 6.1 5.0- 3.0	0.1- 3.3 4.5- 2.3	2.0- 1.3 6.5- 2.7	0.8- 7.1 10.1- 4.0	0.7 4.8 5.3- 3.5

DECEMBER 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 2 28.0 31.0 25.5 1.5 10	3 3 26.6 30.0 23.7 1.3 18	2 2 25.6 28.0 22.6 1.6 12	3 3 25.6 27.0 24.2 1.0 12	3 3 25.5 27.6 23.1 1.0 17	3 3 25.5 28.0 23.1 1.2 12	3 3 25.3 28.0 22.6 1.0 22	3 2 24.6 26.7 22.0 1.3 22
T(W)-T(A)	1 2 0.6- 2.1 5.0- 2.0 10	3 3 0.6 3.8 3.0- 1.6 18	2 2 1.2 5.0 1.0- 2.0 12	3 3 0.8 3.3 1.0- 1.3 12	3 3 0.6 2.7 2.1- 1.2 17	3 3 1.0 3.8 2.0- 1.5 12	3- 3 1.2 4.3 2.0- 1.5 22	3 2 1.2 4.5 0.6- 1.5 22
E(W)-E(A)	1 2 6.0 9.3 1.3 2.2 10	3 3 5.6 8.3 0.3 1.7 18	2 2 4.5 8.0 0.1- 2.1 12	3 3 3.8 8.7 1.2 2.0 12	3 3 3.3 8.3 0.9 2.0 17	3 3 4.6 8.3 1.8 2.1 12	3 3 5.5 8.8 1.5 1.7 21	3 2 5.2 8.5 2.7 1.5 20
EA	1 2 28.3 30.2 25.5 1.3 10	3 3 28.5 31.0 25.2 1.5 18	2 2 28.8 33.5 26.7 1.5 12	3 3 28.7 30.6 26.1 1.3 12	3 3 28.3 29.7 25.2 1.3 17	3 3 28.0 29.6 25.5 1.3 12	3 3 27.5 31.0 24.5 1.5 21	3 2 26.3 28.7 24.2 1.1 20
C	1 2 0.4 1.0 0.1 0.3 10	3 3 0.6 1.0 0.0 0.4 18	2 2 0.7 1.0 0.1 0.3 12	3 3 0.8 1.0 0.3 0.2 12	3 3 0.8 1.0 0.3 0.2 16	3 3 0.8 1.0 0.5 0.1 12	3 3 0.7 1.0 0.3 0.3 22	3 2 0.7 1.0 0.1 0.3 22
P	1 2 10.3 14.5 7.0 2.5 10	3 3 9.5 11.5 7.6 1.0 18	2 2 10.1 13.5 7.6 1.8 12	3 3 9.8 12.5 7.0 1.5 12	3 3 10.2 13.5 7.0 1.7 18	3 3 10.2 13.0 7.6 1.6 12	3 3 10.3 12.7 7.6 1.3 22	3 2 10.7 14.0 8.0 1.5 22
W	1 2 7.5 8.7 5.0 1.3 9	3 3 8.2 11.2 5.0 1.6 18	2 2 6.7 10.7 3.0 2.1 12	3 3 7.5 9.2 4.5 1.5 12	3 3 7.0 11.1 2.5 2.2 18	3 3 6.3 10.7 2.0 2.3 11	3 3 9.0 13.8 4.0 2.6 22	3 2 6.6 11.2 2.5 2.2 22
W(X)	6.8- 3.2- 8.1- 2.0	7.6- 4.8- 10.5- 1.5	6.0- 2.6- 10.7- 2.2	6.8- 4.0- 9.2- 1.5	5.6- 0.9- 11.1- 3.0	3.6- 3.0 10.0- 3.5	6.3- 4.0 13.6- 4.7	4.0- 0.1- 8.5- 2.7
W(Y)	0.3- 3.8 3.0- 2.5	2.0- 1.6 7.5- 2.3	0.1- 3.7 6.0- 3.0	1.0- 5.8 4.3- 2.5	1.5 8.1 4.8- 3.5	0.0 5.2 7.0- 4.3	1.1- 8.1 7.0- 5.0	0.9 8.6 7.3- 5.0

JANUARY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	5 4 26.6 1	3 2 25.6 27.0 24.2 0.9 21	3 3 26.5 29.6 24.0 1.6 11	3 4 26.2 29.0 24.5 1.3 7	4 3 24.7 25.5 24.3 3	4 3 25.5 27.0 24.5 0.7 7	3 3 24.5 26.6 22.6 1.1 9	3 2 25.0 28.0 23.0 1.2 14
T(W)-T(A)	5 4 1.0 1	3 2 1.2 4.5 1.6- 1.5 21	3 3 0.0 2.0 3.0- 1.5 7	3 5 1.2 1.5 1.0 4	4 3 1.8 3.7 0.9 3	4 3 1.5 3.2 0.4- 1.3 7	3 3 1.5 3.8 0.5- 1.3 8	3 2 1.6 3.0 1.0- 1.3 14
E(W)-E(A)	5 4 8.6 1	3 2 6.2 12.1 1.2 2.5 21	4 3 7.2 11.0 4.1 2.2 6	3 5 6.5 10.0 3.5 4	4 3 6.8 8.7 5.2 3	4 3 7.7 10.6 2.3 2.5 7	3 3 6.8 10.1 3.5 2.2 8	3 2 6.6 10.6 2.5 2.2 14
EA	5 4 26.2 1	3 2 27.3 30.7 23.0 1.7 21	4 3 25.2 27.7 21.3 2.7 6	3 5 26.5 28.0 25.0 4	4 3 26.1 29.5 23.6 3	4 3 25.8 30.2 22.0 2.7 7	3 3 25.1 29.0 19.5 2.8 8	3 2 26.1 29.8 19.8 2.2 14
C	5 4 0.9 1	3 2 0.7 1.0 0.0 0.3 21	3 3 0.6 1.0 0.1 0.3 11	3 4 0.6 1.0 0.3 0.3 7	4 3 0.4 0.6 0.1 3	4 3 0.5 0.9 0.1 0.3 7	3 3 0.6 1.0 0.1 0.3 9	3 2 0.6 1.0 0.0 0.3 15
P	5 4 10.5 1	3 2 7.5 9.7 4.5 1.5 20	3 3 9.0 11.1 7.6 1.0 11	3 4 9.5 11.5 8.0 1.0 7	4 3 12.0 12.3 11.5 3	4 3 13.0 16.0 10.0 2.0 7	3 3 11.7 15.5 9.0 2.0 9	3 2 11.0 14.2 8.0 1.7 15
W	5 4 8.7 1	3 2 8.0 12.8 5.0 2.0 21	3 3 5.7 7.1 4.5 0.8 11	3 4 5.3 10.0 3.0 2.5 7	4 3 7.5 7.6 7.3 3	4 3 10.2 19.5 4.0 5.3 7	3 3 6.5 10.7 3.0 2.8 9	3 2 7.0 15.3 2.5 4.0 15
W(X)	6.6-	6.6- 3.3- 12.8- 2.3	4.6- 0.9- 7.0- 1.7	5.1- 3.0- 9.6- 2.3	6.3- 5.1- 7.5-	9.6- 3.8- 18.3- 5.0	4.5- 2.0 9.6- 3.3	5.3- 0.1 14.5- 3.7
W(Y)	5.6-	0.6- 6.6 9.6- 4.1	1.6 5.0 2.1- 2.3	0.7- 0.7 2.6- 1.2	3.3- 1.3- 5.5-	1.0- 6.5 6.5- 3.6	2.1- 3.3 10.5- 3.6	2.5- 3.7 10.2- 3.6

FEBRUARY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 1 26.8 27.6 26.0 4	3 4 25.7 28.5 23.7 1.0 21	4 2 25.6 27.0 24.5 0.8 10	4 4 25.1 26.6 24.0 0.6 14	4 3 25.5 27.0 24.0 0.8 18	4 3 25.3 26.7 24.0 1.0 7	3 2 25.3 27.0 23.7 1.0 7	2 2 26.0 28.0 24.0 1.0 9
T(W)-T(A)	2 1 0.9 1.6 0.0 4	3 4 1.0 2.7 2.0- 1.2 21	4 2 0.7 1.5 0.1- 0.5 10	4 4 0.1 2.8 1.6- 1.1 14	4 3 1.0 3.0 0.3- 1.0 18	4 3 1.0 2.0 0.0 0.8 7	3 2 1.0 2.0 0.0 0.7 7	2 2 0.6 3.0 1.0- 1.0 9
E(W)-E(A)	2 1 4.1 5.1 3.0 4	3 4 7.0 13.1 3.2 2.3 21	4 2 7.2 10.3 2.5 2.6 10	4 4 3.7 12.5 0.1 2.8 14	4 3 6.0 10.2 3.1 2.2 18	4 3 4.7 9.0 1.7 2.5 7	3 2 4.7 6.6 2.5 1.2 7	2 2 5.0 8.7 2.5 2.2 9
EA	2 1 30.8 31.8 30.0 4	3 4 26.5 31.6 21.7 2.5 21	4 2 25.0 27.0 22.5 1.2 10	4 4 26.5 30.5 24.0 1.5 14	4 3 26.3 29.0 24.2 1.3 18	4 3 27.6 30.3 23.6 2.0 7	3 2 27.6 29.0 26.0 1.0 7	2 2 27.7 31.0 23.8 2.3 9
C	2 1 0.6 1.0 0.3 4	3 4 0.6 1.0 0.1 0.3 21	4 2 0.6 1.0 0.3 0.3 10	4 4 0.7 1.0 0.1 0.3 13	4 3 0.6 1.0 0.1 0.3 18	4 3 0.9 1.0 0.6 0.1 8	3 2 0.8 0.9 0.3 0.2 7	2 2 0.7 1.0 0.1 0.3 9
P	2 1 7.6 7.6 7.5 4	3 4 8.5 13.1 5.0 1.7 21	4 2 9.1 13.3 7.0 2.0 10	4 4 10.0 12.5 6.5 1.7 14	4 3 10.8 16.0 7.6 2.0 18	4 3 10.6 14.0 7.5 1.8 8	3 3 9.5 10.5 7.5 1.0 5	2 2 10.7 14.0 9.0 1.6 8
W	2 1 9.5 11.2 5.0 4	3 4 11.3 18.0 5.6 3.1 21	4 2 9.5 12.8 3.0 2.6 10	4 4 7.7 10.5 0.0 2.8 14	4 3 8.5 12.3 2.5 2.8 17	4 3 8.2 11.2 5.0 1.6 8	3 2 7.5 12.8 3.5 3.1 7	2 2 6.6 10.7 3.0 3.0 9
W(X)	8.0- 3.8- 10.0-	8.0- 0.9- 17.0- 4.0	8.6- 2.6- 12.0- 2.3	7.0- 0.0 10.0- 2.7	6.5- 2.1- 11.5- 2.5	6.5- 4.7- 8.5- 1.0	6.3- 2.2- 9.7- 2.3	5.5- 2.2- 10.0- 2.5
W(Y)	4.5- 1.8- 7.3-	6.0- 5.1 17.0- 4.6	2.6- 3.0 8.3- 2.7	1.5- 3.5 8.7- 3.0	2.1- 9.5 9.5- 5.1	1.5- 4.8 7.3- 5.1	2.5- 2.6 8.3- 3.5	2.6- 2.6 6.0- 2.8

LATITUDE 5° - 10° N.

MARCH 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	0	3 3 26.0 28.0 24.2 0.9 19	2 2 27.2 29.0 26.2 3	3 3 26.2 28.0 24.3 0.8 34	4 3 25.5 26.0 24.6 0.4 7	0	3 1 25.2 27.0 23.7 1.0 8	4 4 25.5 29.0 23.7 1.3 12
T(W)-T(A)	0	3 3 1.7 3.2 1.0- 1.0 18	2 2 0.8- 0.5 3.0- 3	3 3 1.0- 1.5 2.7- 1.0 34	4 3 0.6 1.1 0.4 0.3 7	0	3 1 0.9 3.2 0.5- 1.1 8	4 4 0.6- 2.0 3.0- 1.2 12
E(W)-E(A)	0	3 3 9.6 16.7 3.6 3.6 18	2 2 4.3 5.3 2.6 3	3 3 1.6 7.8 2.0- 2.3 34	4 3 4.3 6.8 2.0 2.C 7	0	3 1 4.0 6.8 2.3- 2.6 8	4 4 3.2 8.0 0.5 2.0 12
EA	0	3 3 25.3 30.5 19.7 2.8 18	2 2 28.1 28.8 27.5 3	3 3 28.3 32.1 23.6 1.8 34	4 3 27.3 29.5 25.0 1.8 7	0	3 1 27.7 33.0 25.0 2.2 8	4 4 26.3 29.3 23.5 1.6 12
C	0	3 3 0.3 0.9 0.0 0.2 19	2 2 0.2 0.4 0.1 3	3 3 0.5 1.0 0.1 0.3 35	4 3 0.6 0.8 0.5 0.1 7	0	3 1 C.7 1.0 0.3 0.3 8	4 4 0.6 0.9 0.3 0.2 12
P	0	3 3 11.1 14.0 7.6 1.6 19	2 2 13.0 14.0 11.7 3	3 3 11.0 15.5 8.6 1.6 35	4 3 11.6 12.2 9.8 0.8 7	0	3 1 12.6 14.5 11.0 1.2 8	4 4 12.3 16.2 3.5 3.2 12
W	0	3 3 7.5 12.8 2.0 3.5 19	2 2 10.5 12.8 8.1 3	3 3 8.3 11.2 5.5 1.0 35	4 3 10.2 11.2 9.5 0.6 7	0	3 1 10.1 12.3 7.1 1.7 8	4 4 10.3 12.3 7.6 1.3 12
W(X)		5.5- 2.0- 10.0- 2.5	9.5- 7.0- 12.6-	7.1- 3.7- 11.2- 1.5	10.0- 9.1- 11.0- 0.6		7.8- 3.5- 11.0- 2.5	7.5- 4.7- 10.0- 1.5
W(Y)		4.3- 0.1- 11.1- 3.5	3.8- 2.2- 5.1-	3.6- 0.1- 7.0- 2.0	2.0- 1.8- 3.0- 0.4		5.5- 1.6- 10.1- 2.6	6.8- 3.7- 9.5- 1.5

APRIL 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 4 27.0 1	3 2 26.5 29.0 25.0 0.8 14	3 3 26.0 26.5 25.1 0.4 6	4 4 25.8 26.8 24.5 0.7 12	4 3 26.0 29.0 24.5 1.3 7	1 2 26.2 26.5 26.0 2	2 2 25.5 27.6 23.7 1.0 11	3 2 25.0 27.0 23.7 1.0 7
T(W)-T(A)	1 4 0.3 1	3 2 0.7 2.0 1.8- 0.9 14	3 3 0.3 0.7 0.1- 0.3 6	4 4 0.4- 1.5 2.5- 1.2 12	4 3 0.2- 1.0 2.5- 1.1 7	1 2 4.1 4.5 3.8 2	2 2 2.0 6.5 2.1- 2.3 11	3 2 3.7 6.6 0.0 2.7 7
E(W)-E(A)	1 4 2.2 1	3 2 5.0 7.5 0.9 2.0 14	3 3 4.8 6.2 4.0 0.7 6	4 4 2.5 6.0 0.2- 1.6 12	4 3 1.5 5.1 3.3- 2.8 7	1 2 13.2 13.5 13.0 2	2 2 7.0 15.0 3.1 3.3 11	3 2 10.3 14.5 4.3 4.0 7
EA	1 4 31.8 1	3 2 29.0 33.0 26.0 1.8 14	3 3 27.2 28.5 26.2 0.7 6	4 4 28.2 30.5 25.6 1.5 12	4 3 30.0 36.1 25.5 3.6 7	1 2 27.7 28.0 27.5 2	2 2 28.0 31.0 25.3 1.5 11	3 2 27.3 28.5 25.2 1.0 7
C	1 4 1.0 1	3 2 0.5 1.0 0.1 0.3 14	3 3 0.9 1.0 0.5 0.2 6	4 4 0.7 1.0 0.0 0.3 12	4 3 0.3 0.8 0.0 0.3 7	1 2 0.4 0.4 0.4 2	2 2 0.7 1.0 0.3 0.2 11	3 2 0.9 1.0 0.6 0.2 7
P	1 4 4.0 1	3 2 10.5 12.5 7.5 1.3 14	3 3 13.0 13.5 12.2 0.4 6	4 4 12.8 14.5 10.2 1.1 12	4 3 11.3 14.5 8.0 2.1 7	1 2 11.7 12.5 11.0 2	2 3 12.0 14.7 10.5 1.5 10	3 2 11.8 13.0 10.6 0.8 7
W	1 4 7.1 1	3 2 9.0 12.8 6.1 1.8 14	3 3 6.8 9.2 2.5 2.1 6	4 4 6.8 11.2 4.1 2.1 12	4 3 9.0 11.0 7.1 1.5 7	1 2 3.2 4.0 2.5 2	2 3 7.7 11.2 2.5 3.2 10	3 2 7.0 8.1 4.0 1.2 7
W(X)	5.5-	8.0- 5.7- 12.0- 1.6	6.5- 2.0- 8.6- 2.1	6.1- 3.0- 9.0- 1.7	7.7- 5.5- 9.5- 1.3	0.6- 0.5- 0.7-	5.0- 2.8 8.5- 3.5	0.5 6.2 7.6- 5.0
W(Y)	4.6-	3.1- 4.2 7.3- 2.5	1.2- 1.5 3.1- 1.7	1.2- 3.5 7.3- 3.1	4.3- 1.3- 7.1- 1.7	3.2 4.0 2.5	5.2- 1.0- 7.3- 2.2	1.7- 6.0 7.7- 4.7

LATITUDE 5° - 10° N.

MAY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2 26.7 27.0 26.5 2	3 2 26.7 29.5 25.5 0.9 22	3 1 26.2 26.6 26.0 2	4 4 26.7 29.0 24.8 1.3 8	5 3 25.8 27.0 25.2 3	4 3 26.2 28.0 25.0 4	3 3 26.2 27.7 25.0 0.9 13	3 3 26.5 29.0 25.0 1.2 9
T(W)-T(A)	3 2 1.3 2.1 0.6 2	3 2 1.3 2.7 1.7- 1.1 20	5 1 1.0 1	4 4 1.2 3.0 0.1- 1.0 8	5 3 0.6 1.0 0.0 3	4 3 0.8 2.0 1.0- 4	3 3 0.9 3.0 0.5- 1.0 13	3 3 1.5 3.0 1.0- 1.2 9
E(W)-E(A)	3 2 5.3 6.6 4.1 2	3 2 6.0 9.6 1.2 2.3 20	5 1 7.0 1	4 4 6.8 10.7 3.0 2.5 8	5 3 3.1 5.0 0.6 3	4 3 0.6- 1.8 4.2- 4	3 3 4.0 7.7 1.6 1.6 13	3 3 5.3 9.8 2.1 2.0 9
EA	3 2 30.5 30.5 30.5 2	3 2 29.8 32.5 26.0 1.8 20	5 1 28.0 1	4 4 28.8 30.1 28.0 0.7 8	5 3 29.3 32.8 27.1 3	4 3 34.1 37.7 31.6 4	3 3 29.7 31.6 27.7 1.2 13	3 3 30.1 32.1 27.7 1.5 9
C	3 2 0.9 0.9 0.9 2	3 2 0.7 1.0 0.1 0.3 22	3 1 0.7 0.9 0.5 2	4 4 0.6 0.9 0.3 0.3 8	5 3 0.9 1.0 0.8 3	4 3 1.0 1.0 1.0 4	3 3 0.6 1.0 0.1 0.3 13	3 3 0.8 1.0 0.4 0.2 9
P	3 2 11.8 13.0 10.7 2	3 2 10.1 12.7 7.5 1.5 21	3 1 10.7 12.1 9.5 2	4 4 10.7 13.0 9.0 1.0 8	5 4 13.7 14.1 13.5 2	0	3 3 10.5 12.1 8.6 1.0 10	4 2 11.1 13.5 10.0 1.0 7
W	3 2 7.3 7.6 7.1 2	3 2 7.2 12.3 2.5 2.5 21	3 1 7.1 9.2 5.0 2	4 4 7.5 10.0 5.0 1.5 8	5 3 9.5 10.7 8.1 3	4 3 8.1 8.1 8.1 4	3 3 8.5 11.2 7.1 1.0 13	3 3 9.1 12.8 6.6 2.0 9
W(X)	6.8- 6.6- 7.1-	5.8- 2.3- 10.5- 1.8	6.8- 5.0- 8.6-	7.1- 4.7- 10.0- 1.6	8.6- 6.2- 10.2-	7.6- 7.6- 7.6-	7.5- 6.2- 8.3- 0.5	8.0- 6.2- 9.7- 1.0
W(Y)	2.5- 2.5- 2.6-	3.3- 1.2 7.8- 3.0	2.0- 0.9- 3.1-	1.6- 0.1- 2.6- 1.0	2.1- 1.8 5.2-	2.8- 2.8- 2.8-	3.3- 0.1- 8.6- 2.0	4.0- 2.2- 8.3- 2.2

JUNE 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 4 27.2 28.6 26.7 4	3 2 26.7 28.0 25.5 0.7 11	4 1 26.0 1	3 4 26.6 29.0 25.1 1.1 10	3 3 26.1 28.7 22.0 1.6 12	3 3 26.5 27.8 25.7 0.8 6	3 2 26.2 26.5 26.0 4	4 2 26.8 30.5 24.2 1.3 17
T(W)-T(A)	4 4 0.7 2.5 0.8- 4	3 2 1.6 2.6 0.5 0.7 10	4 1 1.0 1	3 4 0.6 3.5 1.6- 1.3 10	3 3 1.5 6.0 0.6- 1.7 12	3 3 0.6 1.1 0.2- 0.5 6	3 2 1.8 2.1 1.5 4	4 2 0.4 2.7 3.2- 1.5 17
E(W)-E(A)	4 4 4.5 5.5 2.3 4	3 2 6.8 9.5 2.7 1.5 10	4 1 4.5 1	3 4 5.5 9.6 3.2 2.0 10	3 3 6.7 9.6 2.7 2.2 12	3 3 5.3 7.5 3.3 1.3 6	3 2 6.1 7.1 4.0 4	4 2 5.3 9.8 0.3 2.5 17
EA	4 4 31.0 33.0 29.0 4	3 2 29.3 33.1 26.5 1.7 10	4 1 29.1 1	3 4 28.5 30.2 27.3 0.8 10	3 3 28.3 31.0 26.3 1.6 12	3 3 28.6 30.1 26.0 1.5 6	3 2 29.6 31.0 28.5 4	4 2 28.6 32.8 23.6 2.7 17
C	4 4 0.8 1.0 0.6 4	3 2 0.7 0.9 0.3 0.2 11	4 1 0.8 1	3 4 0.7 1.0 0.1 0.3 10	3 2 0.7 1.0 0.4 0.2 11	3 4 0.9 1.0 0.8 4	3 2 0.6 0.8 0.4 4	4 2 0.7 1.0 0.1 0.3 17
P	4 4 12.0 12.7 10.8 4	3 2 10.6 13.7 8.5 1.8 11	4 1 13.0 1	3 4 11.5 13.5 10.1 0.9 10	3 3 12.0 14.5 9.6 1.6 12	3 3 12.1 12.6 11.5 0.4 6	3 2 11.0 11.5 10.5 4	4 2 11.1 16.1 9.5 1.5 17
W	4 4 7.8 12.3 5.6 4	3 2 9.6 15.3 5.0 3.0 11	4 1 7.6 1	3 4 7.6 12.1 3.0 3.0 10	3 3 8.5 12.3 2.5 2.7 12	3 3 7.5 12.3 4.7 3.5 6	3 2 10.5 12.3 7.6 4	4 2 6.6 11.2 1.0 2.6 17
W(X)	6.5- 3.8- 12.3-	8.1- 3.8- 11.6- 2.2	7.5-	6.5- 3.0- 10.0- 2.1	7.5- 2.5- 11.5- 2.5	7.0- 4.6- 11.8- 3.2	6.5- 2.6- 8.1-	3.8- 0.3 8.5- 2.5
W(Y)	3.0- 0.1- 6.8-	4.6- 0.0 10.0- 2.6	1.3-	3.5- 0.0 9.2- 2.6	1.0- 6.2 8.0- 3.8	2.2- 0.9- 4.2- 1.0	4.5- 7.1 9.5-	4.5- 1.0 9.5- 3.0

JULY 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)		2 4	2 2	3 3		0 1	3 3	
		28.0	27.8	26.7		26.5	26.5	
		28.1	29.0	28.5			27.6	
		27.6	24.0	23.1			25.5	
			0.8	1.5			0.7	
	0	3	32	10	0	1	7	0
T(W)-T(A)		2 4	2 2	3 3		0 1	3 3	
		0.6	0.2-	2.0		0.9	1.8	
		1.0	3.5	6.0			2.7	
		0.0	1.6-	0.3-			0.5	
			1.0	1.8			0.7	
	0	3	32	10	0	1	7	0
E(W)-E(A)		2 4	2 2	3 3		0 1	3 3	
		6.7	7.2	10.5		7.0	8.8	
		7.7	14.6	14.8			10.0	
		6.0	3.6	7.0			6.7	
			2.1	2.5			1.0	
	0	3	32	10	0	1	7	0
EA		2 4	2 2	3 3		0 1	3 3	
		30.0	29.0	26.7		27.5	27.7	
		31.0	32.8	29.0			29.1	
		29.5	22.2	23.5			26.8	
			2.0	1.7			0.7	
	0	3	32	10	0	1	7	0
C		2 4	2 2	3 3		0 1	3 3	
		0.2	0.5	0.6		0.1	0.5	
		0.3	1.0	1.0			1.0	
		0.1	0.3	0.4			0.3	
			0.2	0.2			0.2	
	0	3	32	10	0	1	7	0
P			2 2	2 4		0 1	3 3	
			9.8	10.5		10.6	10.1	
			12.5	11.7			12.0	
			6.5	9.6			8.5	
			1.6	0.9			1.0	
	0	0	30	5	0	1	7	0
W		2 4	2 2	3 3		0 1	3 3	
		8.1	2.7	3.6		6.1	5.3	
		8.1	5.6	6.1			6.1	
		8.1	1.5	1.0			3.0	
			1.0	1.5			1.0	
	0	3	30	10	0	1	7	0
W(X)		7.6-	2.0-	1.7-		4.0-	4.0-	
		7.0-	1.1	2.2			0.0	
		8.1-	5.6-	5.0-			6.1-	
			1.5	2.1			2.1	
W(Y)		2.3-	1.0	2.0		4.6	1.3	
		0.1-	3.5	5.2			5.7	
		4.1-	3.0-	0.9-			2.1-	
			1.2	1.8			2.6	

AUGUST 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	2 4	2 2	3 4			3 4	
	28.0	27.5	27.8	27.1			26.7	
	29.0	28.0	29.0	28.6			27.0	
	27.0	27.0	25.0	26.0			26.5	
	0.7		0.7	0.9				
	8	3	36	11	0	0	3	0
T(W)-T(A)	3 3	2 4	2 2	3 4			3 4	
	1.0	1.5	0.3-	1.2			1.5	
	3.0	2.0	2.5	2.7			2.1	
	0.0	1.0	2.0-	1.0-			1.0	
	0.9		0.8	1.1				
	8	3	36	11	0	0	3	0
E(W)-E(A)	3 3	2 4	2 2	3 4			3 4	
	8.8	9.5	6.7	6.7			8.0	
	11.1	10.0	10.3	9.6			9.6	
	6.5	8.1	2.8	2.1			7.1	
	1.6		1.8	2.0				
	8	3	35	11	0	0	3	0
EA	3 3	2 4	2 2	3 4			3 4	
	29.0	28.3	29.1	29.6			28.2	
	30.5	29.0	32.8	35.0			28.7	
	27.1	27.5	26.6	26.6			27.5	
	1.1		1.5	2.0				
	8	3	35	11	0	0	3	0
C	3 3	2 4	2 2	3 4			3 4	
	0.6	0.4	0.5	0.9			0.8	
	1.0	0.4	1.0	1.0			0.9	
	0.1	0.4	0.1	0.4			0.5	
	0.3		0.2	0.2				
	8	3	36	10	0	0	3	0
P	3 3	2 4	2 2	3 4			3 4	
	9.0	9.5	8.7	8.6			9.3	
	10.0	9.6	12.1	10.6			9.6	
	7.5	9.0	6.5	6.2			9.0	
	0.8		1.6	1.5				
	8	3	35	11	0	0	3	0
W	2 3	2 4	2 2	3 4			3 4	
	3.7	5.0	4.0	4.6			7.6	
	6.1	6.1	9.2	7.6			8.7	
	1.5	4.0	1.0	2.5			6.1	
	1.5		2.1	1.5				
	6	3	36	10	0	0	3	0
W(X)	3.2-	4.7-	3.2-	2.1-			5.6-	
	0.0	3.5-	0.0	3.0			2.1-	
	6.1-	5.7-	7.5-	5.1-			8.0-	
	1.8		1.7	2.3				
W(Y)	1.1	0.3	1.8	2.8			4.2	
	2.2	2.0	7.0	5.8			5.7	
	0.1-	2.0-	1.3-	2.3-			1.3	
	0.9		1.7	2.2				

LATITUDE 0° – 5° N.

SEPTEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)		3 4	2 2	2 3		2 2	3 4	5 2
		27.3	28.2	26.6		26.6	26.0	26.0
		28.5	31.0	27.6		28.0	27.5	27.0
		26.0	27.0	24.6		26.0	25.5	25.0
		0.7	1.0	0.9			0.8	
	0	12	37	14	0	4	5	2
T(W)-T(A)		3 4	2 2	2 3		2 2	3 4	5 2
		1.5	0.4-	1.7		0.9	1.8	2.5
		2.8	2.8	4.0		2.0	3.7	4.0
		0.3	4.0-	0.5		0.0	0.7	1.0
		0.8	1.5	1.1			1.0	
	0	12	37	14	0	4	5	2
E(W)-E(A)		3 4	2 2	2 3		2 2	3 4	5 2
		9.2	8.2	7.7		7.5	8.7	8.7
		11.5	12.3	13.1		8.5	11.5	9.7
		7.5	4.5	4.3		6.7	6.8	7.7
		1.0	1.5	2.1			1.5	
	0	12	37	14	0	4	5	2
EA		3 4	2 2	2 3		2 2	3 4	5 2
		28.5	28.2	28.8		27.2	26.7	27.7
		29.7	32.8	33.1		28.5	27.3	27.8
		27.1	24.6	25.2		26.0	26.0	27.7
		0.8	1.7	2.0			0.4	
	0	12	37	14	0	4	5	2
C		3 4	2 2	2 3		2 2	3 4	5 2
		0.5	0.5	0.5		0.6	0.5	0.9
		0.9	1.0	1.0		1.0	0.8	1.0
		0.4	0.1	0.0		0.3	0.4	0.8
		0.2	0.3	0.3			0.1	
	0	12	37	14	0	4	5	2
P		2 5	2 2	3 4		2 2	3 4	5 2
		9.8	10.2	10.5		10.7	9.0	11.1
		11.5	12.0	13.1		12.5	10.6	13.5
		8.0	7.0	8.6		9.7	7.0	9.0
		1.0	1.0	1.5			1.2	
	0	6	36	5	0	4	5	2
W		2 4	2 2	2 3		2 2	3 4	5 2
		5.0	3.5	4.5		4.8	10.6	6.0
		7.1	9.2	7.1		8.1	12.8	7.1
		2.5	1.0	2.5		3.0	8.7	5.0
		1.5	2.0	1.8			1.2	
	0	11	37	14	0	4	5	2
W(X)		2.7-	2.2-	1.5-		1.7-	4.7-	1.1
		2.1	3.5	2.8		0.7-	1.5-	2.5
		6.7-	7.2-	5.5-		4.1-	7.0-	0.1-
		3.2	2.2	2.5		.	1.7	
W(Y)		2.0	1.7	2.7		4.3	9.3	1.3
		5.0	9.0	7.1		7.0	12.0	7.1
		1.0-	0.1-	2.6-		2.6	8.1	4.3-
		2.0	1.8	2.6			1.3	

OCTOBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	2 4	2 2	3 4		0 1	3 4	
	28.1	27.5	28.0	28.5		26.0	26.1	
	30.5	31.5	31.0	33.5			26.5	
	26.0	23.0	26.0	26.5			25.5	
	1.5	1.6	1.1	1.8				
	5	19	33	9	0	1	3	0
T(W)-T(A)	3 3	3 4	2 2	3 4		0 1	3 4	
	2.3	1.1	0.9-	0.0		1.6	2.1	
	4.5	5.6	1.2	3.0			3.2	
	0.5-	2.2-	3.5-	3.5-			1.0	
	2.0	1.6	1.0	1.7				
	5	17	30	9	0	1	3	0
E(W)-E(A)	3 3	3 4	2 2	3 4		0 1	3 4	
	8.2	7.8	6.8	9.5		8.3	10.0	
	10.0	14.1	9.7	14.0			11.1	
	6.3	5.1	3.0	5.2			8.7	
	1.3	2.0	1.5	2.8				
	5	17	30	9	0	1	3	0
EA	3 3	3 4	2 2	3 4		0 1	3 4	
	33.0	29.7	28.5	27.3		26.5	26.3	
	34.5	32.8	32.1	28.3			26.8	
	31.0	25.7	26.3	25.7			26.0	
	1.1	1.7	1.6	0.9				
	5	17	30	9	0	1	3	0
C	3 3	3 4	2 2	3 4		0 1	3 4	
	0.7	0.7	0.6	0.4		0.3	0.7	
	1.0	1.0	1.0	0.8			1.0	
	0.4	0.1	0.1	0.1			0.5	
	0.3	0.3	0.3	0.2				
	5	17	32	9	0	1	3	0
P	3 3	2 4	2 2	3 4		0 1	3 4	
	9.2	9.0	10.0	11.0		9.6	8.5	
	11.0	12.5	12.0	13.5			9.6	
	8.0	6.0	8.5	8.5			8.0	
	1.0	1.3	1.0	1.7				
	5	19	32	9	0	1	3	0
W	3 3	3 4	2 2	3 4		0 1	3 4	
	6.0	5.2	4.2	6.5		10.2	12.0	
	7.6	7.6	9.7	10.2			14.3	
	4.5	1.5	1.0	4.0			10.2	
	1.0	1.7	2.1	2.2				
	5	18	33	9	0	1	3	0
W(X)	4.3-	3.6-	3.2-	6.1-		9.0-	8.5-	
	2.2-	1.5	0.0	2.6-			4.0-	
	7.5-	7.6-	9.7-	9.6-			13.5-	
	1.7	2.2	2.3	2.2				
W(Y)	1.5	1.1	1.6	1.1		5.0	7.2	
	6.2	7.1	6.1	3.3			10.5	
	2.3-	4.3-	1.5-	1.3-			4.7	
	3.5	3.2	1.7	2.0				

LATITUDE 0° – 5° N.

NOVEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	0	2 3 28.0 31.5 26.6 1.1 14	2 2 28.0 30.0 25.0 1.0 31	2 3 27.6 31.7 25.6 1.5 9	5 5 27.0 1	3 1 27.0 27.6 26.0 0.6 5	4 3 25.6 26.0 25.0 3	0
T(W)-T(A)	0	2 3 0.6 2.5 5.8- 2.1 14	2 2 0.5- 2.1 2.5- 1.0 31	2 3 1.1 3.8 4.0- 2.1 9	5 5 3.3 1	3 1 0.4 1.6 0.4- 0.7 5	4 3 2.7 3.7 1.6 3	0
E(W)-E(A)	0	2 3 8.2 12.2 4.2- 3.8 14	2 2 7.8 10.6 4.3 1.6 31	2 3 8.6 11.0 5.0 1.7 9	5 5 10.8 1	3 1 6.0 7.5 4.5 1.0 5	4 3 8.5 8.7 8.3 3	0
EA	0	2 3 28.6 31.5 25.7 1.7 14	2 2 28.0 31.5 24.6 1.7 31	2 3 28.8 30.5 27.1 1.1 9	5 5 30.1 1	3 1 28.2 29.0 26.5 0.9 5	4 3 27.8 28.6 26.5 3	0
C	0	2 3 0.5 1.0 0.0 0.3 14	2 2 0.6 1.0 0.3 0.2 31	2 3 0.7 1.0 0.4 0.3 9	5 5 1.0 1	3 1 0.6 0.9 0.4 0.2 5	4 3 0.8 1.0 0.6 3	0
P	0	2 3 10.0 12.6 7.5 1.5 11	2 2 10.2 12.1 6.7 1.5 32	2 3 10.5 12.0 9.0 4	5 5 11.7 1	3 1 10.2 11.7 8.0 1.3 5	4 3 9.2 10.0 8.6 3	0
W	0	3 3 3.5 7.6 0.5 1.7 13	2 2 3.0 6.1 0.0 1.2 30	2 3 4.5 8.1 0.5 2.1 9	5 5 7.6 1	3 1 3.8 6.6 2.5 1.6 5	4 3 7.1 8.7 5.0 3	0
W(X)		2.1- 1.5 6.0- 2.5	2.2- 1.2 6.1- 1.6	3.5- 0.5- 6.3- 2.0	7.6-	2.3- 1.6- 4.2- 1.0	2.3- 1.2 8.5-	
W(Y)		1.0 4.8 1.7- 2.0	1.3 3.5 0.1- 1.1	2.2 5.1 0.0 1.6	0.1-	1.0 5.0 4.8- 3.2	4.6 7.5 1.3	

DECEMBER 1963

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	0	3 4 28.5 29.0 27.0 0.5 11	2 2 27.5 29.0 24.0 1.2 26	3 4 26.6 28.0 24.0 1.0 10	0	2 3 26.2 27.0 25.0 0.7 7	3 4 26.0 28.0 25.0 0.9 9	5 1 25.3 26.7 24.0 2
T(W)-T(A)	0	3 4 0.2 1.6 0.5- 0.6 11	2 2 0.5- 2.7 2.3- 1.2 26	3 4 1.5 4.1 0.1 1.0 10	0	2 3 2.7 3.8 1.1 1.0 7	3 4 2.1 3.7 1.0 0.9 9	5 1 3.1 5.0 1.2 2
E(W)-E(A)	0	3 4 8.7 11.2 6.1 1.5 11	2 2 6.0 8.1 2.1 1.7 26	3 4 7.3 9.0 6.0 0.7 10	0	2 3 8.3 10.8 4.0 2.1 7	3 4 7.3 11.2 3.2 2.0 9	5 1 9.0 10.2 7.8 2
EA	0	3 4 28.3 31.5 26.3 1.5 11	2 2 29.0 32.8 26.3 1.8 26	3 4 28.7 30.1 27.0 0.9 10	0	2 3 29.5 34.7 26.8 2.2 7	3 4 28.8 31.6 26.0 2.0 9	5 1 27.5 27.8 27.3 2
C	0	3 4 0.6 1.0 0.1 0.2 11	2 2 0.6 1.0 0.3 0.2 26	3 4 0.7 1.0 0.1 0.3 10	0	2 3 0.6 1.0 0.0 0.3 7	3 4 0.7 1.0 0.0 0.4 9	5 1 0.8 1.0 0.6 2
P	0	3 4 7.0 7.6 6.0 0.5 11	2 2 8.6 12.1 4.5 1.8 26	3 4 7.8 10.5 6.2 1.1 10	0	2 3 9.1 18.5 5.6 4.0 7	3 4 9.3 12.5 5.0 2.2 9	5 1 13.0 14.0 12.0 2
W	0	3 4 5.1 8.7 2.0 1.7 11	2 2 4.6 9.2 0.5 2.1 26	3 4 7.8 10.7 2.5 2.7 10	0	2 3 9.1 12.3 5.0 2.1 7	3 4 8.7 12.3 5.0 2.1 9	5 1 3.2 4.0 2.5 2
W(X)		4.6- 2.0- 7.5- 1.5	3.8- 0.0 7.0- 2.2	6.6- 2.3- 10.6- 2.7		5.2- 1.7- 9.5- 2.5	6.6- 4.0- 10.7- 2.0	3.0- 2.3- 3.8-
W(Y)		0.1- 2.8 4.3- 2.2	1.0 5.8 4.0- 2.2	0.4 7.7 6.6- 4.0		4.3 9.5 9.0- 5.8	2.3 7.1 4.6- 5.0	1.0 1.3 0.9

LATITUDE 0° – 5° N.

JANUARY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 4	2 2	3 4		2 2	3 3	3 4
	27.2	27.5	27.5	26.7		26.5	26.2	25.7
	29.0	30.0	29.0	27.6		28.1	27.0	27.0
	26.0	26.5	26.0	26.0		25.5	25.5	23.5
	1.0	0.8	0.8			0.8		1.1
	5	19	31	4	0	8	4	5
T(W)-T(A)	3 2	3 4	2 2	3 4		2 2	3 3	3 4
	1.0	1.0	0.5-	1.0		0.5	1.5	2.7
	3.0	2.6	1.6	2.1		2.1	3.0	5.5
	1.0-	0.0	2.3-	0.0		0.7-	0.5	1.0
	1.2	0.8	0.9			1.0		1.5
	5	19	31	4	0	8	4	5
E(W)-E(A)	3 2	3 4	2 2	3 4		2 2	3 3	3 4
	8.1	6.2	5.8	5.7		6.1	7.6	8.2
	16.2	9.7	7.8	8.0		8.5	9.1	11.7
	4.0	1.7	3.2	4.6		3.8	5.8	2.5
	4.2	2.5	1.1			1.5		3.0
	5	19	31	4	0	8	4	5
EA	3 2	3 4	2 2	3 4		2 2	3 3	3 4
	28.1	31.0	28.8	29.5		27.5	27.5	28.5
	31.5	35.3	32.1	30.5		29.5	29.0	31.0
	21.3	27.1	27.0	28.0		25.1	26.0	25.8
	3.5	2.1	1.5			1.3		1.6
	5	19	31	4	0	8	4	5
C	2 2	3 4	2 2	3 4		2 2	3 3	3 4
	0.7	0.7	0.6	0.9		0.3	0.9	0.6
	1.0	1.0	1.0	1.0		1.0	1.0	1.0
	0.1	0.1	0.1	0.8		0.0	0.8	0.1
	0.4	0.3	0.2			0.3		0.3
	6	22	31	4	0	8	4	5
P	2 2	3 4	2 2	3 4		2 2	3 3	3 4
	7.3	7.0	8.2	8.5		10.0	9.5	8.2
	8.6	10.6	12.0	9.5		12.0	11.2	11.0
	6.0	3.5	5.7	6.0		8.0	8.0	6.5
	0.9	1.3	1.5			1.0		1.5
	6	22	31	4	0	8	4	5
W	2 2	3 4	2 2	3 4		2 2	3 3	3 4
	7.8	7.3	3.8	6.1		7.5	7.5	5.3
	10.2	10.7	6.6	6.6		11.2	8.1	6.6
	5.0	3.5	0.5	5.0		4.5	5.6	3.0
	1.8	2.5	1.5			2.1		1.1
	6	22	31	4	0	8	4	5
W(X)	6.5-	6.5-	3.5-	5.8-		6.7-	6.2-	2.0-
	1.6-	2.2-	0.4-	5.0-		3.3-	3.6-	2.0
	9.5-	10.7-	6.2-	6.2-		11.0-	7.7-	6.2-
	2.5	2.5	1.5			2.5		2.7
W(Y)	3.6-	2.7-	0.7	0.3		1.3	4.0	3.0
	1.0-	1.6	4.2	2.1		5.7	5.1	5.5
	5.1-	6.6-	1.6-	2.1-		2.0-	2.6	2.2-
	1.5	2.0	1.3			2.6		3.0

FEBRUARY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	28.5	26.5	26.8	26.3	26.5		24.6	26.6
	31.0	28.7	30.0	29.5	28.0		26.5	27.6
	27.0	24.5	23.0	24.0	25.5		22.0	25.6
		1.0	1.0	1.0	0.7		1.5	0.7
	3	15	40	18	14	0	5	8
T(W)-T(A)	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	0.4-	1.3	0.2-	0.8	1.0		2.5	0.7
	0.8	3.6	3.6	4.1	5.0		5.5	2.0
	2.7-	0.6-	2.0-	2.0-	1.3-		0.5-	1.0-
		1.0	1.2	1.5	1.8		1.8	1.0
	3	15	40	18	14	0	5	8
E(W)-E(A)	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	3.0	6.6	6.0	5.1	6.7		7.0	6.3
	8.1	11.0	12.2	12.3	13.0		9.5	8.6
	6.3-	3.5	1.1	0.2	3.3		3.1	4.0
		2.1	2.3	3.3	3.5		2.2	1.5
	3	15	40	18	14	0	5	8
EA	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	32.6	28.5	28.0	28.7	28.0		27.0	27.8
	42.3	32.3	32.8	34.7	29.5		28.6	29.0
	27.5	21.7	22.1	24.2	26.5		25.5	26.1
		3.0	2.1	2.5	0.9		1.2	0.9
	3	15	40	18	14	0	5	8
C	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	0.9	0.6	0.5	0.5	0.4		0.7	0.8
	1.0	1.0	1.0	1.0	1.0		1.0	1.0
	0.8	0.0	0.1	0.1	0.3		0.1	0.3
		0.4	0.3	0.3	0.2		0.3	0.2
	3	19	40	19	14	0	5	9
P	3 2	3 4	2 2	2 4	2 5		2 3	3 4
	7.5	7.3	8.8	10.2	9.2		7.2	8.2
	8.2	10.1	12.1	11.7	11.1		9.0	12.5
	6.1	5.2	6.0	7.0	7.5		4.5	5.1
		1.2	1.7	1.2	1.0		1.5	2.3
	3	19	38	19	14	0	5	6
W	3 2	3 4	2 2	2 4	2 5		2 3	3 3
	7.6	7.0	4.2	6.0	5.6		8.2	4.8
	10.2	11.2	10.7	10.7	8.1		10.2	7.6
	3.5	2.5	1.0	2.0	2.5		4.1	2.5
		2.7	2.0	2.0	1.5		2.0	1.8
	3	19	40	19	14	0	5	9
W(X)	6.0-	6.2-	3.7-	5.0-	5.0-		5.7-	3.1-
	3.5-	1.6-	0.0	1.5	1.2-		1.5-	0.0
	8.0-	10.7-	10.7-	8.1-	8.1-		10.2-	5.0-
		3.0	2.1	2.5	1.8		3.3	1.5
W(Y)	4.1-	1.8-	0.1	0.6-	1.1		0.1-	3.3
	0.0	1.3	3.2	4.3	4.3		7.0	5.8
	7.8-	7.3-	6.0-	7.1-	4.7-		9.0-	0.0
		2.2	2.0	2.8	2.1		5.1	1.8

MARCH 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	1 3	2 4	2 2	3 4	2 3	2 3	3 4	
	27.0	27.0	26.6	26.0	25.8	25.5	25.7	
	30.0	30.0	29.0	28.0	27.0	26.5	27.6	
	25.5	25.5	24.0	23.6	24.5	23.7	24.2	
	1.2	1.0	1.0	1.0	0.7	0.8	1.0	
	8	18	42	17	10	10	6	0
T(W)-T(A)	1 3	3 4	2 2	3 4	2 3	2 3	3 4	
	0.0	0.4	0.5-	0.9	0.4	1.5	1.5	
	2.1	2.0	2.0	3.2	1.5	3.8	2.7	
	2.0-	3.3-	3.0-	0.8-	0.9-	0.5	0.0	
	1.3	1.2	1.1	1.1	0.7	1.0	0.9	
	8	16	40	17	10	10	6	0
E(W)-E(A)	2 2	3 4	2 2	3 4	2 3	2 3	3 4	
	4.5	3.5	4.3	3.3	3.2	5.3	6.2	
	6.1	7.3	7.3	5.8	5.3	7.6	8.0	
	3.1	0.8-	0.9	0.0	1.6	4.0	5.0	
	1.0	2.1	1.5	1.6	1.0	1.3	1.0	
	5	16	39	17	10	10	6	0
EA	2 2	3 4	2 2	3 4	2 3	2 3	3 4	
	29.7	30.5	28.5	30.1	28.8	28.3	28.0	
	31.0	33.5	32.1	35.0	30.2	29.6	29.7	
	27.5	27.5	25.2	27.5	27.0	26.7	25.6	
	1.1	1.6	1.5	2.0	1.0	0.9	1.5	
	5	16	39	17	10	10	6	0
C	1 3	2 4	2 2	3 4	2 3	2 3	3 4	
	0.5	0.4	0.6	0.7	0.7	0.5	0.6	
	0.9	0.9	1.0	1.0	1.0	1.0	1.0	
	0.0	0.1	0.1	0.1	0.1	0.0	0.1	
	0.3	0.2	0.3	0.3	0.3	0.4	0.3	
	8	18	42	19	9	10	6	0
P	1 3	2 5	2 2	3 4	2 3	2 3	3 4	
	9.3	8.7	9.5	8.2	9.0	9.5	8.6	
	11.0	10.6	12.1	10.0	11.7	12.0	10.5	
	3.5	4.5	7.5	6.0	7.1	7.6	7.0	
	2.2	1.6	1.2	1.0	1.1	1.3	1.1	
	8	15	40	20	10	10	6	0
W	1 3	2 4	2 2	3 4	2 3	2 3	3 4	
	6.5	6.7	4.1	6.0	7.0	5.5	9.3	
	7.6	10.2	8.7	12.8	10.0	8.1	11.2	
	5.0	4.0	0.5	1.5	4.5	3.5	8.1	
	1.0	2.0	2.3	2.2	1.5	1.5	1.0	
	8	18	41	19	10	10	6	0
W(X)	6.2-	5.5-	3.5-	5.1-	6.0-	5.0-	7.1-	
	5.0-	1.7-	0.4-	0.8-	2.5-	2.5-	2.8-	
	7.5-	9.0-	8.7-	12.0-	10.0-	7.7-	9.2-	
	0.8	2.0	2.2	2.2	2.0	1.6	2.0	
W(Y)	1.1-	1.3-	0.6	0.1-	1.1	0.5-	0.4	
	1.2	4.7	7.6	6.1	5.5	4.3	8.5	
	3.8-	8.1-	6.3-	5.2-	3.8-	4.1-	6.6-	
	1.5	3.5	2.0	3.0	2.7	2.3	5.7	

APRIL 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 4	2 2	4 4	4 3	3 3	4 3	4 3
	27.3	27.5	27.7	28.0	26.C	26.0	26.8	27.3
	28.0	31.0	30.0	30.5	28.3	29.0	30.0	30.0
	26.0	25.0	24.0	25.0	25.0	23.7	24.2	26.0
	0.7	1.3	1.0	1.6	1.0	1.3	1.7	1.5
	7	24	37	9	8	14	7	7
T(W)-T(A)	2 2	3 4	2 2	2 4	3 3	2 3	2 3	4 4
	0.5	0.6	0.9-	0.3	1.1	1.1	3.1	1.6
	2.0	1.7	4.0	2.5	2.1	3.0	4.0	3.0
	0.0	3.2-	2.6-	2.7-	0.7-	0.2-	1.6	1.7-
		1.3	1.2	1.8	1.0	0.9		
	4	20	34	5	6	10	3	4
E(W)-E(A)	2 2	3 4	2 2	2 4	3 3	2 3	2 3	4 4
	2.8	4.5	6.1	5.2	6.7	5.2	7.8	6.1
	4.5	10.0	9.5	6.5	10.5	8.3	8.5	8.1
	1.8	0.4	2.2	3.0	3.0	1.5	6.7	0.6
		2.3	1.6	1.2	2.5	2.0		
	4	20	34	5	6	10	3	4
EA	2 2	3 4	2 2	2 4	3 3	2 3	2 3	4 4
	31.3	30.8	28.0	30.0	27.1	27.2	28.1	29.6
	32.5	34.5	32.1	32.8	29.0	31.0	29.0	31.0
	30.2	27.2	24.6	28.6	24.3	25.0	26.5	28.5
		2.2	1.7	1.5	1.6	1.5		
	4	20	34	5	6	10	3	4
C	3 2	3 4	2 2	4 4	4 3	3 3	4 4	4 3
	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.9
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	0.3	0.1	0.1	0.1	0.1	0.0	0.5	0.6
	0.3	0.2	0.2	0.3	0.3	0.4	0.1	0.1
	6	24	37	9	8	18	8	7
P	3 2	3 4	2 2	4 4	4 3	3 3	4 4	4 3
	12.0	10.2	9.7	13.2	11.8	10.3	11.7	12.1
	16.0	17.0	17.0	18.0	16.0	16.0	17.0	16.0
	8.0	6.6	6.2	9.1	8.2	4.5	5.0	8.5
	3.3	2.8	2.5	3.1	2.5	3.3	4.5	2.5
	7	24	37	9	8	18	8	7
W	3 2	3 4	2 2	4 4	4 3	3 3	4 4	4 3
	5.2	8.6	4.1	6.2	8.5	6.2	6.1	5.3
	10.2	12.8	9.7	7.1	12.8	12.8	12.3	7.6
	2.5	5.0	1.0	4.5	3.0	2.5	2.5	2.5
	2.7	2.1	1.7	1.0	3.1	2.8	3.5	1.5
	7	24	37	9	8	18	8	7
W(X)	5.0-	8.3-	3.6-	5.6-	7.3-	5.1-	4.6-	4.3-
	2.3-	5.0-	1.0-	3.2-	3.0-	0.0	0.0	0.0
	9.5-	12.6-	9.1-	7.1-	11.0-	11.0-	11.5-	7.2-
	2.5	2.1	1.7	1.2	2.5	2.5	3.1	2.2
W(Y)	0.9-	0.8	0.9	2.2	2.2-	0.7	2.8	1.3
	0.9	5.0	3.5	3.8	2.3	5.8	9.2	4.5
	3.5-	5.0-	4.0-	0.1-	8.3-	8.3-	0.8-	2.5-
	1.6	1.8	1.7	1.1	4.1	3.6	3.0	2.0

MAY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3 27.5 30.5 26.0 1.5 9	2 3 27.1 29.2 25.5 1.1 11	2 2 27.3 29.0 26.0 0.7 36	3 4 26.5 29.5 24.0 1.6 7	5 2 27.0 1	2 3 26.0 26.7 25.0 0.7 5	2 4 25.7 26.5 25.0 0.5 5	4 1 27.0 28.0 26.0 4
T(W)-T(A)	2 3 0.8 2.5 2.2- 1.5 9	2 3 0.5 2.1 1.0- 1.0 11	2 2 1.0- 1.2 3.2- 1.0 36	3 4 1.1 3.6 2.5- 1.8 7	5 2 0.2 1	2 3 0.5 1.1 0.0 0.4 5	2 4 1.2 2.6 0.0 1.0 5	4 1 1.3 3.0 0.5 4
E(W)-E(A)	2 3 7.3 9.1 3.7 1.6 9	2 3 3.0 9.3 0.6 2.5 11	2 2 6.6 10.3 2.6 1.6 36	3 4 6.0 7.6 5.0 0.8 7	5 2 6.8 1	2 3 3.6 5.1 0.8 1.5 5	2 4 4.8 5.5 4.0 0.6 5	4 1 10.7 13.0 9.1 4
EA	2 3 28.8 30.5 26.7 1.2 9	2 3 31.8 35.3 24.0 3.0 11	2 2 26.6 30.7 23.6 1.6 36	3 4 28.6 30.0 27.2 0.9 7	5 2 27.0 1	2 3 28.8 29.8 27.8 0.7 5	2 4 28.8 31.8 26.0 2.0 5	4 1 25.5 28.5 22.0 4
C	2 3 0.5 1.0 0.3 0.3 9	2 3 0.5 1.0 0.3 0.2 11	2 2 0.6 0.9 0.1 0.2 36	2 4 0.8 1.0 0.5 0.2 6	5 2 1.0 1	2 3 0.5 1.0 0.1 0.3 5	2 4 0.5 1.0 0.1 0.3 5	4 0 0.5 0.8 0.3 3
P	2 3 9.7 11.5 1.5 3.0 9	2 3 10.1 13.0 7.5 1.6 11	2 2 9.5 12.5 6.7 1.3 35	3 4 10.7 11.7 7.5 1.3 7	5 2 13.0 1	2 3 8.7 9.5 8.0 0.7 5	2 4 8.7 10.0 7.5 1.0 5	4 1 12.3 13.7 10.0 4
W	2 3 6.3 9.2 5.0 1.3 9	2 3 4.5 5.0 4.0 0.4 11	2 2 4.3 8.7 1.5 1.3 36	3 4 6.0 9.7 2.5 2.8 7	5 2 4.5 1	2 3 5.0 7.6 2.5 1.6 5	2 4 5.3 10.7 3.0 2.6 5	4 1 6.0 7.1 2.5 4
W(X)	5.0- 3.2- 8.6- 1.7	4.0- 2.6- 5.0- 0.9	3.6- 1.1- 8.5- 1.2	4.8- 1.2- 9.1- 2.7	1.5-	3.6- 2.1- 4.8- 0.9	4.8- 2.2- 10.7- 3.0	5.5- 2.0- 6.7-
W(Y)	1.5 4.8 4.6- 3.5	2.0 3.5 0.8 0.9	1.7 3.8 1.5- 1.5	2.3 5.8 3.3- 2.8	4.2	3.1 6.6 1.2 1.7	1.0 2.8 2.0- 1.7	2.1 2.3 1.5

JUNE 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3 27.0 28.5 26.0 0.6 12	3 4 27.5 29.6 26.5 1.0 15	2 2 27.2 28.0 26.0 0.8 29	3 3 26.7 30.5 25.5 1.1 16	3 4 26.5 27.0 25.7 0.5 7	2 2 25.2 27.0 23.7 0.9 12	3 4 25.6 26.2 25.0 0.9 10	3 2 25.7 27.5 24.0 1.1 7
T(W)-T(A)	3 3 0.9 2.0 1.5- 1.0 12	3 4 0.4 2.1 1.8- 1.2 15	2 2 1.0- 1.8 2.5- 1.1 20	3 3 1.1 3.0 3.3- 1.5 16	3 4 2.0 3.0 0.4 1.0 7	2 2 0.8 3.2 1.0- 1.1 12	3 4 1.2 3.1 1.2- 1.3 10	3 2 0.0 2.0 2.0- 1.3 7
E(W)-E(A)	3 3 8.2 11.5 5.5 1.7 12	3 4 6.6 9.6 1.8 1.8 15	2 2 6.6 8.5 2.8 1.2 20	3 3 7.2 12.0 2.5 2.5 16	3 4 7.1 9.0 6.3 0.8 7	2 2 5.5 8.2 2.0 1.8 12	3 4 7.1 12.5 3.1 3.1 10	3 2 6.0 9.8 2.0 2.6 7
EA	3 3 27.0 28.1 25.2 0.9 12	3 4 26.7 31.8 27.1 1.1 15	2 2 26.6 30.1 24.6 1.5 20	3 3 28.1 34.2 25.1 2.3 16	3 4 29.5 32.8 24.5 2.8 7	2 2 26.2 28.1 25.2 0.9 12	3 4 26.5 29.5 23.5 2.3 10	3 2 25.2 27.7 24.3 1.0 7
C	3 3 0.3 0.9 0.0 0.3 12	3 4 0.6 1.0 0.0 0.3 15	2 2 0.5 0.9 0.1 0.3 29	3 3 0.4 0.8 0.0 0.2 16	3 4 0.7 0.9 0.0 0.3 7	2 2 0.4 0.9 0.0 0.3 12	3 4 0.5 1.0 0.0 0.3 10	3 2 0.4 0.8 0.0 0.2 7
P	3 3 9.7 12.0 7.1 1.5 10	2 4 10.3 12.7 8.2 1.3 12	2 2 10.5 19.0 7.7 2.1 29	3 3 10.0 14.5 7.0 2.0 15	3 4 11.0 14.0 7.6 2.2 7	2 2 11.0 13.6 7.5 2.0 12	3 4 11.7 14.5 9.0 1.6 10	3 2 12.7 15.5 9.0 2.2 7
W	3 3 5.6 7.6 2.5 1.6 12	3 4 6.0 8.1 4.0 1.1 15	2 2 4.1 7.6 1.0 1.2 29	3 3 7.3 10.2 4.0 2.0 16	3 4 5.6 6.6 3.0 1.2 7	2 2 6.5 10.2 4.5 1.5 12	3 4 7.2 10.7 4.5 2.2 10	3 2 6.5 8.7 5.0 1.0 7
W(X)	4.1- 0.9- 7.2- 1.8	5.5- 4.0- 8.1- 1.1	3.7- 0.8- 6.6- 1.2	6.0- 2.5- 9.6- 2.0	3.3- 0.1- 6.2- 2.1	4.7- 1.0- 7.8- 2.0	4.0- 3.5 7.8- 3.5	5.5- 4.5- 7.5- 0.9
W(Y)	2.5 6.1 4.0- 3.0	0.9 4.8 2.5- 2.1	1.1 3.8 0.1- 1.3	3.0 6.5 4.2- 2.6	3.0 6.6 3.3- 3.0	4.0 6.5 1.0 1.5	4.6 10.1 1.5 2.6	3.1 4.2 2.5 0.5

LATITUDE 0° – 5° N.

JULY 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	5 3 27.5 27.6 27.2 2	2 4 26.5 27.6 25.5 0.6 21	2 2 26.8 28.1 25.6 0.6 35	3 3 26.5 29.2 24.5 1.3 17	4 4 25.8 27.5 25.0 3	2 2 25.3 27.0 23.7 1.0 5	3 3 24.6 26.0 24.2 0.6 7	3 3 24.8 26.0 23.0 1.0 10
T(W)-T(A)	5 3 0.2 0.3 0.0 2	2 4 0.7 2.1 1.0- 0.9 21	3 3 0.4- 2.0 2.5- 1.5 12	3 3 1.1 3.2 2.0- 1.2 17	4 4 0.3- 1.0 2.5- 3	2 2 0.5- 1.1 1.0- 0.9 5	3 3 1.8 3.8 0.0 1.1 7	3 3 1.5 2.7 0.3 0.7 10
E(W)-E(A)	5 3 8.3 9.3 7.3 2	2 4 6.3 9.6 1.7 2.0 21	3 3 7.0 9.1 5.5 1.0 12	3 3 8.5 14.1 4.8 2.0 17	4 4 4.0 5.0 2.2 3	2 2 1.0- 4.2 3.5- 2.8 5	3 3 7.2 8.2 6.0 0.7 7	3 3 9.3 11.3 4.0 2.0 10
EA	5 3 26.3 27.5 25.3 2	2 4 27.6 31.3 25.2 1.5 21	3 3 26.3 29.1 23.0 1.8 12	3 3 26.6 28.8 24.5 1.2 17	4 4 26.8 27.3 26.5 3	2 2 30.5 32.5 25.3 2.5 5	3 3 25.5 27.6 23.7 1.5 7	3 3 23.1 27.3 20.5 1.7 10
C	5 3 0.9 1.0 0.8 2	2 4 0.5 1.0 0.3 0.2 20	2 2 0.5 1.0 0.1 0.3 35	3 3 0.5 1.0 0.1 0.3 17	4 4 0.4 0.5 0.3 3	2 2 0.3 0.8 0.0 0.3 5	4 3 0.6 0.8 0.3 0.2 6	3 3 0.4 0.9 0.1 0.3 10
P	5 3 8.2 8.5 8.1 2	2 4 10.0 12.0 6.6 1.2 21	2 2 10.3 12.5 8.0 1.1 35	3 3 10.5 13.0 8.2 1.7 12	4 4 11.1 11.5 11.0 3	3 2 10.0 12.0 9.0 4	3 2 12.0 13.5 10.5 1.1 5	3 3 12.1 13.0 10.2 1.0 10
W	5 3 6.6 6.6 6.6 2	2 4 7.0 10.7 4.0 2.0 21	2 2 4.0 6.6 1.5 1.1 35	3 3 7.1 10.2 4.0 2.2 17	4 4 4.1 4.3 4.0 3	0 1 3.5 1	3 3 5.0 10.2 2.5 2.2 7	3 3 4.8 8.1 3.0 1.3 10
W(X)	3.3- 3.3- 3.3-	6.3- 3.1- 10.6- 1.8	3.0- 0.0 6.6- 1.1	4.1- 1.3- 7.8- 1.5	2.5- 2.0- 3.0-	2.2-	2.3- 1.6 6.6- 3.0	2.5- 0.5 3.2- 1.1
W(Y)	5.7 5.7 5.7	2.2 8.1 2.3- 2.0	2.0 4.7 0.1- 1.3	4.8 10.0 4.7- 3.5	3.1 3.5 3.0	2.6	1.8 7.7 4.3- 3.6	4.0 7.6 2.6 1.2

AUGUST 1964

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 3 26.7 29.2 25.0 1.0 15	1 5 26.5 29.0 25.0 0.8 46	2 2 26.6 29.0 25.0 0.8 33	3 4 27.0 28.0 26.0 2	5 1 24.5 1	3 3 26.0 28.7 25.0 1.2 6	2 4 25.1 27.0 23.6 0.9 8	1 5 23.5 23.7 23.1 2
T(W)-T(A)	2 3 0.6 4.0 0.6- 1.1 15	1 5 1.5 4.0 1.0- 1.1 43	2 2 1.2- 1.2 2.8- 1.0 31	3 4 0.0 1.3 1.5- 2	5 1 1.5 1	3 3 0.3 2.0 3.2- 1.6 6	2 4 0.4 1.5 2.7- 1.5 8	1 5 0.5 1.0 0.0 2
E(W)-E(A)	2 3 7.3 12.6 4.3 2.2 15	1 5 9.0 14.8 2.1 3.0 43	2 2 6.0 11.6 2.3 1.7 31	3 4 7.2 9.0 5.6 2	5 1 5.6 1	3 3 7.1 10.6 1.5 3.2 6	2 4 4.0 8.0 0.8 2.2 8	1 5 3.0 3.7 2.2 2
EA	2 3 27.0 29.0 23.8 1.5 15	1 5 27.0 31.5 23.5 1.5 43	2 2 25.5 31.0 21.3 1.7 31	3 4 26.2 27.0 25.5 2	5 1 25.8 1	3 3 25.0 29.0 22.6 2.2 6	2 4 27.0 29.5 24.5 1.7 8	1 5 25.0 25.3 24.6 2
C	2 3 0.5 1.0 0.0 0.3 15	1 5 0.5 1.0 0.0 0.2 46	2 2 0.4 1.0 0.0 0.3 39	3 4 0.7 0.9 0.5 2	5 1 0.3 1	3 3 0.6 0.9 0.4 0.2 6	2 4 0.5 1.0 0.1 0.3 7	1 5 0.0 0.0 0.0 2
P	2 3 11.2 14.5 9.2 1.5 15	1 5 10.0 12.6 6.0 1.3 46	2 2 10.6 13.5 8.5 1.0 39	3 4 8.6 9.5 7.7 2	5 1 12.0 1	3 3 11.5 14.5 8.5 2.0 6	2 4 13.5 17.0 12.0 1.5 8	1 5 15.0 16.0 14.0 2
W	2 3 6.5 10.2 2.5 2.2 15	1 5 6.7 11.7 3.5 2.0 46	2 2 5.7 12.8 2.5 2.0 39	3 4 8.1 10.2 6.1 2	0	3 3 9.8 12.3 7.6 1.5 6	2 4 8.5 10.2 4.5 1.6 8	1 5 8.5 9.2 7.6 2
W(X)	6.0- 2.1- 10.2- 2.1	6.0- 2.1- 9.8- 2.0	5.1- 2.0- 12.6- 2.3	2.8- 2.1- 3.5-		6.8- 1.3- 8.6- 2.5	6.8- 4.3- 9.0- 1.3	7.3- 6.6- 8.0-
W(Y)	1.6 6.6 1.0- 2.0	1.3 9.0 3.6- 2.6	1.5 4.6 1.5- 1.6	7.6 9.5 5.7		6.5 9.3 4.5 1.6	4.6 7.7 1.5 2.2	4.1 4.5 3.7

LATITUDE 0° – 5° N.

SEPTEMBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	2 4	2 2	3 3	4 4	4 3	4 4	5 1
	26.0	26.0	26.7	26.8	25.8	25.1	25.0	25.6
	29.0	28.1	28.0	31.5	26.7	25.6	25.5	27.0
	24.0	23.7	25.0	24.1	25.0	25.0	25.0	24.5
	1.0	0.8	0.7	1.8	0.6		0.2	
	33	42	34	17	8	4	7	3
T(W)-T(A)	2 2	2 4	2 2	3 3	4 4	4 3	4 4	5 1
	0.7	0.6	1.3-	0.6-	0.3	0.8	1.5	0.8
	3.0	2.1	1.0	2.1	1.5	1.8	2.0	2.5
	1.5-	1.0-	3.1-	6.0-	0.5-	0.4-	0.0	0.0
	1.1	0.7	1.0	2.0	0.7		0.7	
	33	42	34	17	8	4	7	3
E(W)-E(A)	2 2	2 4	4 3	3 3	4 4	4 3	4 4	5 1
	6.0	6.2	7.2	6.1	5.7	4.7	6.8	5.6
	10.8	10.5	9.5	11.0	7.5	6.5	10.5	8.7
	2.3	2.1	5.8	2.7	4.1	1.5	2.5	2.3
	2.1	1.8	1.1	2.3	1.0		2.5	
	33	42	8	17	8	4	7	3
EA	2 2	2 4	4 3	3 3	4 4	4 3	4 4	5 1
	26.8	26.5	25.5	26.0	26.1	26.8	25.8	27.0
	31.3	32.2	27.1	28.5	28.7	27.3	28.3	28.2
	24.0	24.5	24.3	23.6	24.0	26.1	23.0	24.8
	1.5	1.3	1.0	1.3	1.2		1.5	
	33	42	8	17	8	4	7	3
C	2 2	2 4	2 2	3 3	4 4	4 3	4 4	5 1
	0.6	0.4	0.5	0.4	0.4	0.7	0.7	0.8
	1.0	1.0	1.0	0.9	0.9	1.0	1.0	0.8
	0.1	0.0	0.1	0.1	0.1	0.3	0.3	0.8
	0.3	0.3	0.3	0.2	0.2		0.3	
	33	42	33	17	8	4	7	3
P	2 2	2 4	2 2	3 3	4 4	4 3	4 4	5 1
	9.5	9.2	9.8	10.6	10.5	10.0	9.8	13.5
	11.7	11.5	12.5	12.7	14.5	12.0	12.0	15.2
	7.2	7.0	6.2	8.6	9.0	8.0	8.0	11.6
	1.0	1.0	1.2	1.0	1.5		1.5	
	33	43	33	16	8	4	6	3
W	1 2	2 4	2 2	3 3	4 4	5 3	4 4	5 1
	4.7	4.3	5.0	7.1	6.3	3.5	8.6	8.6
	9.7	7.6	10.2	12.8	9.2	4.0	11.2	11.2
	1.0	1.0	1.0	5.0	1.0	2.5	5.0	4.5
	2.1	1.5	1.3	2.2	2.5		2.1	
	32	43	33	17	7	3	7	3
W(X)	4.5-	3.7-	4.2-	4.0-	4.7-	3.3-	5.5-	5.5-
	0.8-	0.1-	0.0	0.9-	0.8-	2.0-	0.1-	4.0-
	9.1-	7.2-	7.8-	6.6-	7.6-	4.0-	10.7-	6.6-
	2.0	1.5	1.5	1.7	2.3		3.5	
W(Y)	0.8	1.2	1.7	5.2	2.8	0.5	5.5	6.5
	7.0	6.1	6.5	11.0	9.0	1.5	8.5	9.7
	1.7-	2.8-	0.1-	0.1-	0.1-	0.7-	0.1-	2.2
	1.7	1.6	2.0	2.7	3.0		2.5	

OCTOBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 4	2 2	3 3	2 3	0 3	2 3	4 3
	26.6	26.1	26.5	25.5	25.2	24.5	23.6	24.5
	28.7	28.0	28.0	28.7	26.0	25.5	25.0	26.0
	25.0	23.7	23.7	23.7	24.7	23.7	22.2	23.0
	0.8	1.0	0.8	1.1				0.9
	20	17	61	26	3	2	3	10
T(W)-T(A)	3 2	3 4	2 2	3 3	2 3	0 3	2 3	4 3
	0.8	1.0	0.7-	0.6	0.3	0.4	2.1	1.8
	2.1	2.7	2.7	3.8	1.1	1.6	4.3	4.0
	2.7-	0.0	3.5-	3.7-	1.0-	1.0-	0.5	0.0
	1.0	0.7	1.1	1.3				1.1
	20	17	61	26	3	2	3	10
E(W)-E(A)	3 2	3 4	3 3	3 3	2 3	0 3	2 3	4 3
	7.6	7.0	6.8	6.0	4.7	5.2	7.5	8.5
	11.3	11.6	10.1	11.5	7.2	6.3	10.5	11.0
	2.2	3.3	3.0	0.7	3.2	4.1	6.0	5.5
	2.5	2.0	2.0	3.5				1.6
	20	17	36	26	3	2	3	10
EA	3 2	3 4	3 3	3 3	2 3	0 3	2 3	4 3
	26.7	27.1	25.6	26.0	26.1	24.5	23.8	23.7
	29.3	30.2	28.5	29.0	28.2	24.6	25.3	26.6
	24.2	24.2	22.7	21.8	24.2	24.2	21.7	21.7
	1.5	1.5	1.5	2.1				1.5
	20	17	36	26	3	2	3	10
C	3 2	3 4	2 3	3 3	2 3	0 3	2 3	4 3
	0.5	0.4	0.5	0.5	0.4	0.2	0.2	0.7
	1.0	1.0	1.0	1.0	0.8	0.4	0.6	1.0
	0.0	0.1	0.1	0.0	0.3	0.1	0.0	0.1
	0.3	0.3	0.3	0.3				0.3
	20	18	59	26	4	3	3	9
P	3 2	3 4	2 3	3 3	2 3	0 3	2 3	4 3
	10.1	9.7	10.0	10.5	11.3	11.2	9.8	12.2
	13.0	14.5	13.5	15.5	13.0	16.0	11.5	15.0
	7.7	7.6	7.0	7.5	9.0	7.5	8.6	10.0
	1.8	2.0	1.3	2.0				1.5
	20	18	60	26	4	3	3	10
W	3 2	3 4	2 3	3 4	3 5	1 3	2 3	4 3
	5.3	5.7	6.6	6.7	0.0	5.0	6.5	4.0
	10.2	10.0	11.5	10.2		10.2	7.6	5.0
	1.0	3.0	2.0	4.0		0.0	4.0	1.0
	2.3	2.0	2.2	1.7				1.3
	20	18	60	24	1	2	3	10
W(X)	4.3-	5.0-	5.6-	2.8-	0.0	5.0-	4.0-	3.1-
	1.0	0.0	1.5-	0.1-		0.0	3.1-	0.2-
	8.8-	8.8-	10.1-	6.0-		10.2-	5.0-	5.0-
	2.2	2.5	2.1	1.8				1.5
W(Y)	0.5	1.6	3.0	5.2	0.0	0.0	5.0	1.7
	5.5	4.6	6.5	10.2		0.0	6.6	3.8
	5.1-	1.0-	0.1-	4.7-		0.1-	2.5	0.0
	3.0	1.7	1.7	3.0				1.5

LATITUDE 0° - 5° N.

NOVEMBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2 26.1 29.0 25.0 1.3 7	3 3 26.0 28.1 25.0 0.9 9	2 2 26.6 29.0 23.6 1.0 34	2 4 25.1 27.0 23.1 1.1 11	4 3 25.2 27.2 23.6 1.0 10	3 3 25.0 26.6 23.1 0.8 11	3 4 23.7 24.2 23.2 0.4 5	4 1 25.5 26.5 24.0 0.9 5
T(W)-T(A)	2 2 0.6 2.0 1.3- 1.0 7	3 3 0.9 1.8 0.1- 0.6 9	2 2 1.5- 2.0 4.0- 1.3 34	2 4 1.1 3.0 1.0- 1.2 11	4 3 0.6 2.1 1.2- 1.0 10	3 3 0.1 1.6 2.0- 1.3 11	3 4 1.8 3.6 0.5- 1.7 5	4 1 1.0 3.0 2.2- 2.0 5
E(W)-E(A)	2 2 5.3 7.3 3.0 1.2 7	3 3 7.1 9.2 4.7 1.2 9	2 3 7.2 9.5 3.5 2.0 7	2 4 6.3 11.1 1.0 3.0 11	4 3 7.5 11.7 3.3 2.6 10	3 3 5.1 9.0 2.6 2.1 11	3 4 5.6 7.1 3.1 1.5 5	4 1 8.0 11.8 3.5 3.0 5
EA	2 2 27.6 28.7 26.6 0.8 7	3 3 26.2 28.2 23.5 1.3 9	2 3 25.5 28.0 23.8 1.2 7	2 4 26.0 28.6 24.3 1.3 11	4 3 23.8 28.2 21.0 2.5 10	3 3 24.7 27.8 22.2 1.5 11	3 4 25.2 26.7 23.1 1.5 5	4 1 25.0 27.3 23.6 1.3 5
C	2 2 0.2 0.6 0.0 0.2 7	3 3 0.4 1.0 0.0 0.4 9	2 2 0.4 1.0 0.1 0.3 34	2 4 0.3 0.8 0.1 0.2 11	4 3 0.4 0.9 0.1 0.3 10	3 3 0.5 1.0 0.0 0.3 11	3 4 0.6 1.0 0.3 0.2 6	4 1 0.6 1.0 0.1 0.3 5
P	2 2 8.7 11.0 7.5 1.1 7	3 3 7.7 9.0 7.0 0.6 9	2 2 9.6 12.5 6.6 1.2 33	2 4 9.2 12.0 7.0 1.2 11	4 3 9.7 11.5 7.6 1.3 10	3 3 11.0 14.0 8.0 1.6 11	3 4 10.5 12.5 8.5 1.5 6	4 1 11.7 14.0 9.7 1.3 5
W	2 2 7.3 10.2 3.5 2.6 7	3 3 6.7 10.2 3.5 2.3 9	2 2 5.0 11.2 1.5 1.6 34	2 4 8.6 10.2 3.5 2.3 11	5 3 4.0 8.1 1.0 2.7 5	2 2 9.1 11.2 6.1 1.3 10	3 4 6.5 8.1 5.0 1.1 6	4 1 7.7 9.7 4.5 1.7 5
W(X)	7.2- 2.7- 10.2- 2.8	6.7- 3.3- 10.2- 2.3	4.5- 1.5- 11.1- 1.6	6.8- 3.5- 10.2- 2.0	3.7- 0.9- 8.0- 2.6	5.7- 0.1- 8.0- 2.3	4.7- 1.7- 6.5- 1.5	5.0- 1.5- 7.5- 2.5
W(Y)	0.3 2.2 0.1- 0.8	0.1 1.1 0.1- 0.4	1.1 4.2 2.2- 1.6	4.1 7.7 0.1- 3.1	1.5 2.7 0.5 0.9	6.1 11.2 1.3 2.6	3.8 5.8 1.0 1.7	5.5 7.1 3.7 1.2

DECEMBER 1964

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2 26.8 29.0 25.0 1.0 13	2 4 26.3 30.0 25.0 1.1 13	2 2 26.3 28.0 25.0 0.7 27	2 4 26.1 27.0 25.0 0.7 7	0	3 3 24.5 27.0 23.1 1.0 8	2 4 24.5 26.5 22.6 1.1 10	1 1 23.8 26.5 22.5 1.2 7
T(W)-T(A)	3 2 0.6- 1.0 4.0- 1.3 13	2 4 0.6- 2.1 3.5- 1.6 13	2 2 1.1- 1.0 2.5- 0.8 27	2 4 0.5 1.5 1.1- 1.0 7	0	3 3 2.0 3.3 1.0- 1.2 8	2 4 0.8 3.3 2.7- 1.7 10	1 1 0.3 2.0 3.3- 1.6 7
E(W)-E(A)	3 2 4.3 7.5 0.4- 2.3 13	2 4 3.0 5.5 0.8 1.3 13	3 1 6.1 7.8 4.6 3	2 4 6.8 9.1 5.0 1.5 7	0	3 3 6.7 9.7 3.8 2.0 8	2 4 4.8 12.5 0.2 4.1 10	1 1 2.8 4.1 0.8- 1.5 7
EA	3 2 27.7 31.0 25.1 1.6 13	2 4 28.0 31.2 25.6 1.6 13	3 1 26.8 27.6 26.0 3	2 4 26.0 26.5 25.5 0.3 7	0	3 3 26.0 28.6 23.8 1.6 8	2 4 25.6 29.0 22.3 1.8 10	1 1 25.6 28.2 23.7 1.7 7
C	3 2 0.6 0.9 0.1 0.3 13	2 4 0.4 1.0 0.1 0.3 13	2 2 0.4 1.0 0.1 0.3 26	2 4 0.5 0.8 0.3 0.1 7	0	3 3 0.6 1.0 0.1 0.4 8	2 4 0.6 1.0 0.3 0.3 10	1 1 0.5 1.0 0.1 0.3 7
P	3 2 10.3 14.0 7.5 1.5 13	2 4 10.1 13.5 5.2 2.5 13	2 2 9.7 13.7 6.0 1.6 25	2 4 12.0 13.5 10.5 1.0 7	0	3 2 10.5 12.0 9.0 1.0 7	2 4 11.0 13.5 9.0 1.6 10	1 1 11.0 15.6 8.5 2.0 7
W	3 2 6.8 10.2 1.5 2.6 13	2 4 7.5 12.8 5.0 2.0 13	2 2 3.8 6.6 1.5 1.3 27	2 4 7.2 9.2 5.0 1.3 7	0	3 3 8.5 10.2 5.0 1.5 8	2 4 8.0 10.2 6.1 1.0 10	1 1 6.2 7.6 5.0 0.9 7
W(X)	5.5- 1.1- 10.0- 2.3	6.6- 3.8- 12.6- 2.2	3.1- 0.0 6.6- 1.5	5.8- 4.0- 8.0- 1.3		6.6- 4.0- 10.1- 2.1	6.0- 2.6- 9.6- 1.8	5.5- 3.2- 6.7- 1.0
W(Y)	2.6 7.0 1.8- 3.0	0.5 5.8 3.6- 3.0	1.3 4.6 0.1- 1.5	4.0 6.2 2.0 1.2		4.7 7.0 1.6 1.6	4.7 7.7 2.0 1.6	2.2 5.8 0.5- 1.8

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JANUARY 1965

	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	27.0	26.5	26.6	25.2	26.0		23.5	24.6
	27.5	30.0	30.0	25.6	26.5		24.5	26.5
	26.5	25.0	24.0	24.5	25.5		21.0	22.6
		0.9	1.0	0.5			1.1	0.9
	4	58	36	5	4	0	6	14
T(W)-T(A)	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	1.2	0.9	1.3-	1.2	2.6		2.5	1.5
	2.5	3.0	1.2	2.5	3.7		5.5	4.7
	0.1-	2.8-	3.3-	0.3	1.5		1.1	0.5-
		1.0	1.0	0.8			1.5	1.2
	4	55	30	5	4	0	6	14
E(W)-E(A)	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	9.0	7.6	4.5	4.3	9.5		6.1	4.6
	15.3	11.0	4.8	6.2	11.5		10.0	8.7
	6.3	0.9	4.1	2.6	8.3		0.7	0.6
		2.1		1.1			3.6	2.6
	4	55	2	5	4	0	6	14
EA	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	27.0	26.5	27.1	28.5	27.5		25.5	27.5
	29.5	31.8	27.7	28.8	28.7		30.8	31.0
	24.5	22.5	26.6	27.8	26.8		22.6	24.6
		1.7		0.3			3.1	1.7
	4	55	2	5	4	0	6	14
C	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	0.3	0.4	0.4	0.8	0.3		0.8	0.8
	0.4	1.0	1.0	1.0	0.8		1.0	1.0
	0.1	0.1	0.1	0.4	0.1		0.3	0.3
		0.2	0.3	0.2			0.3	0.2
	4	58	34	5	4	0	6	14
P	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	6.6	7.6	8.7	8.3	10.8		11.0	11.3
	11.1	12.0	12.5	9.0	12.5		16.5	16.5
	5.0	4.2	7.0	7.1	9.6		8.5	6.5
		1.6	1.2	0.7			2.5	2.8
	4	57	36	5	4	0	6	14
W	4 3	1 4	2 2	3 4	3 4		3 3	3 3
	5.3	6.0	4.3	6.5	6.3		6.3	7.3
	11.2	10.2	7.6	9.2	7.6		9.2	12.8
	2.5	1.5	0.5	4.5	2.5		0.0	2.5
		1.8	1.7	1.6			3.0	2.8
	4	58	36	5	4	0	6	14
W(X)	5.0-	5.1-	3.8-	6.0-	6.1-		5.5-	7.0-
	2.0-	0.1	0.0	4.5-	2.5-		0.0	2.5-
	11.1-	8.7-	7.2-	8.0-	7.5-		7.7-	12.8-
		2.2	1.5	1.1			2.5	3.0
W(Y)	0.7-	0.1-	1.3	1.5	0.2-		2.7	1.5
	1.8	6.5	4.8	4.5	2.5		7.0	4.0
	2.0-	9.0-	0.3-	0.9-	1.3-		0.0	0.1-
		2.8	1.7	2.0			2.5	1.3

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	LONGITUDE WEST 170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	3 4	2 2	2 3	4 5	C 1	3 4	5 0
	26.6	26.3	26.6	26.0	25.8	26.0	25.5	24.0
	29.0	28.7	28.0	28.1	26.5		25.5	
	25.2	24.5	25.0	24.6	25.5		25.5	
	0.9	1.1	0.9	0.9	0.3			
	14	13	26	13	5	1	3	1
T(W)-T(A)	3 2	3 4	2 2	2 3	4 5	0 1	3 4	5 0
	0.4	1.0	1.0-	1.0	0.7	0.0	0.7	3.0
	2.1	3.2	1.5	3.0	2.1		1.0	
	1.8-	0.6-	2.7-	2.1-	0.2-		0.5	
	1.0	1.1	1.1	1.5	0.8			
	14	13	26	13	5	1	3	1
E(W)-E(A)	3 2	3 4	2 2	2 3	4 5	0 1	3 4	5 0
	5.0	6.6	5.5	6.3	5.5	5.0	3.1	6.0
	7.0	10.3	10.5	12.1	8.7		4.3	
	3.0	2.7	3.2	2.2	2.0		2.0	
	1.1	2.0	1.5	2.7	2.5			
	14	13	26	13	5	1	3	1
EA	3 2	3 4	2 2	2 3	4 5	0 1	3 4	5 0
	28.7	28.0	26.5	27.5	27.0	26.5	28.6	27.3
	31.8	29.8	27.7	30.3	28.6		29.5	
	26.5	26.0	23.6	23.7	24.6		28.2	
	1.3	1.2	1.1	2.0	1.3			
	14	13	26	13	5	1	3	1
C	3 2	3 4	2 2	2 3	4 5	0 1	3 4	5 0
	0.7	0.5	0.4	0.5	0.7	0.5	0.5	0.8
	1.0	1.0	1.0	1.0	1.0		0.6	
	0.4	0.1	0.0	0.1	0.4		0.4	
	0.2	0.2	0.3	0.3	0.2			
	14	13	26	13	5	1	3	1
P	3 2	3 4	2 2	2 3	4 5			5 0
	7.5	6.5	8.1	7.7	9.5			9.5
	8.7	7.7	12.1	13.0	11.5			
	5.6	5.2	5.5	5.6	7.0			
	0.9	0.8	1.1	1.8	1.5			
	14	13	26	13	5	0	0	1
W	3 2	3 4	2 2	2 3	4 5	0 1	3 4	5 0
	8.0	6.2	4.5	7.3	8.5	5.0	5.2	3.5
	13.8	10.2	10.7	13.3	12.3		5.6	
	2.5	2.5	1.0	4.0	4.5		5.0	
	3.3	2.3	2.2	2.8	2.8			
	14	13	26	13	5	1	3	1
W(X)	7.3-	5.6-	4.0-	6.1-	7.6-	4.8-	5.0-	2.2-
	1.6-	1.5-	0.8-	2.5-	4.0-		4.8-	
	13.8-	9.6-	10.7-	13.1-	10.7-		5.2-	
	3.2	2.5	2.2	3.1	2.6			
W(Y)	1.7-	0.8-	1.0	2.5	2.2	1.6	1.7	2.6
	2.0	3.3	4.2	8.1	6.0		1.8	
	8.3-	4.8-	2.0-	4.1-	4.1-		1.6	
	2.5	2.2	1.6	3.0	3.5			

LATITUDE 0°- 5° N.

MARCH 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	26.8	26.7	27.2	26.1	26.5	26.0	26.5	
	28.0	28.0	30.0	27.6	27.6		28.7	
	24.2	25.5	25.0	25.0	25.5		25.0	
	1.2	0.7	1.2	0.7	0.7		1.0	
	8	15	32	17	14	1	14	0
T(W)-T(A)	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	1.5	0.8	1.0-	0.1-	1.6-	1.0	0.1-	
	3.8	1.8	1.0	2.6	1.0		2.0	
	0.0	1.0-	4.0-	2.6-	3.3-		2.7-	
	1.1	0.9	1.2	1.5	1.2		1.1	
	7	15	32	17	14	1	14	0
E(W)-E(A)	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	7.1	5.0	3.8	1.3	0.1-	8.3	2.6	
	10.5	12.0	6.3	5.3	4.3		5.5	
	5.0	0.1	1.3	2.0-	4.1-		0.1-	
	1.7	3.5	1.1	1.8	2.5		1.6	
	7	15	32	17	14	1	14	0
EA	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	29.0	29.6	29.2	30.5	29.5	25.2	29.6	
	30.5	33.5	31.5	33.5	31.8		31.6	
	27.0	25.6	26.6	26.0	28.0		27.1	
	1.0	2.0	1.1	1.8	1.C		1.1	
	7	15	32	17	14	1	14	0
C	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	0.4	0.6	0.5	0.6	0.5	0.1	0.6	
	1.0	1.0	1.0	1.0	0.9		1.0	
	0.3	0.1	C.1	0.1	0.3		0.1	
	0.2	0.3	0.3	0.3	0.2		0.3	
	8	15	32	17	14	1	14	0
P	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	11.0	10.1	8.7	10.0	9.1	10.0	10.1	
	13.0	12.5	12.5	12.5	12.5		12.0	
	10.5	8.5	7.5	7.5	6.2		8.0	
	0.8	1.2	0.8	1.5	1.6		1.2	
	8	15	32	17	14	1	14	0
W	2 2	3 4	2 2	4 3	3 4	0 2	3 3	
	3.5	7.7	4.1	7.6	7.8	5.0	7.5	
	5.6	11.2	10.2	10.2	10.2		10.2	
	2.0	5.0	1.5	5.0	6.1		4.5	
	1.2	2.0	2.0	1.2	0.9		2.0	
	8	15	32	17	14	1	14	0
W(X)	3.0-	6.5-	3.6-	6.1-	7.2-	4.7-	6.0-	
	1.8-	4.7-	1.1-	3.2-	5.8-		3.5-	
	4.8-	9.5-	9.0-	10.0-	10.2-		9.5-	
	1.0	1.3	1.7	1.6	1.C		1.7	
W(Y)	0.5-	3.3-	0.5-	2.3-	0.3-	1.7-	4.0-	
	2.7	1.0	3.8	6.2	4.6		0.1-	
	3.1-	9.8-	5.1-	7.0-	7.0-		8.0-	
	2.0	2.8	2.0	3.5	3.0		2.0	

APRIL 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 2	2 4	2 2	3 3		3 3	3 4	
	27.3	27.0	27.6	27.2		26.5	26.2	
	28.5	30.0	29.5	30.6		27.0	27.1	
	26.5	26.0	25.0	25.5		26.0	25.5	
	0.7	0.9	1.0	1.5			0.6	
	7	22	35	10	0	2	8	0
T(W)-T(A)	3 2	2 4	2 2	3 3		3 3	3 4	
	0.0	0.2	0.8-	0.2		3.0	1.0	
	1.0	1.3	1.5	2.1		4.5	2.6	
	1.0-	2.8-	2.5-	3.0-		1.5	0.0	
	0.7	0.9	1.0	1.3			0.8	
	7	22	35	10	0	2	7	0
E(W)-E(A)	3 2	2 4	2 2	3 3		3 3	3 4	
	4.5	3.2	3.6	2.3		7.8	5.5	
	6.5	7.5	7.3	5.3		10.0	10.7	
	1.8	0.7-	4.0-	3.2-		5.7	2.3	
	1.7	2.0	2.0	2.1			2.6	
	7	22	35	10	0	2	7	0
EA	3 2	2 4	2 2	3 3		3 3	3 4	
	29.6	30.7	30.7	32.0		30.8	28.8	
	32.0	34.3	40.0	38.2		31.0	31.2	
	28.2	27.7	27.5	29.5		30.7	27.5	
	1.5	1.7	2.1	2.2			1.1	
	7	22	35	10	0	2	7	0
C	3 2	2 4	2 2	3 3		3 3	3 4	
	0.3	0.6	0.5	0.5		0.7	0.4	
	0.4	1.0	1.0	1.0		0.9	0.9	
	0.0	0.3	0.1	0.3		0.5	0.1	
	0.2	0.3	0.3	0.2			0.2	
	7	22	35	10	0	2	8	0
P	3 2	2 4	2 2	3 3		3 3	3 4	
	8.0	8.7	8.8	9.3		10.6	10.5	
	11.0	12.0	15.5	11.6		10.6	13.1	
	5.0	2.2	2.5	7.0		10.6	9.0	
	2.0	2.8	2.6	1.5			1.5	
	7	22	35	10	0	2	5	0
W	3 2	2 4	2 2	3 3		3 3	3 4	
	7.0	6.5	3.5	6.2		4.0	6.0	
	10.2	11.2	7.1	10.2		4.0	11.2	
	5.0	2.0	1.5	4.0		4.0	2.0	
	1.6	2.3	1.1	2.0			3.1	
	7	22	35	10	0	2	8	0
W(X)	6.5-	6.0-	3.5-	6.0-		2.3-	4.8-	
	4.3-	1.8-	1.1-	3.8-		0.7-	1.7-	
	9.5-	11.2-	7.1-	10.0-		4.0-	10.5-	
	1.6	2.1	1.1	1.8			2.8	
W(Y)	1.8-	1.7-	0.2-	1.5-		2.2	1.5-	
	0.1-	1.6	1.0	0.0		4.0	4.7	
	4.6-	6.3-	3.0-	3.3-		0.7	7.3-	
	1.6	2.1	0.6	1.1			3.2	

LATITUDE 0°–5° N.

MAY 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	27.7	27.3	28.1	27.2		27.0	26.7	26.5
	28.1	30.0	30.0	28.0		27.2	28.1	27.0
	27.5	25.5	26.0	27.0		26.6	25.5	25.5
		1.0	0.8			0.2		0.6
	4	21	34	4	0	6	4	6
T(W)-T(A)	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	1.1	1.2	C.8-	1.1		0.2	0.8	0.6
	1.7	3.7	3.5	1.7		0.7	2.1	1.0
	0.6	0.7-	2.8-	0.8		0.3-	0.5-	0.0
		1.0	1.3			0.3		0.4
	4	19	33	4	0	6	4	6
E(W)-E(A)	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	7.2	6.6	4.1	6.7		5.0	5.2	2.8
	8.3	12.5	12.5	8.1		6.0	6.5	5.5
	6.5	1.3	0.9	5.6		4.0	4.1	0.1-
		3.0	2.3			0.7		2.1
	4	19	33	4	0	6	4	6
EA	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	30.5	30.5	31.5	29.6		28.7	29.3	31.0
	31.0	34.2	34.2	30.1		29.6	30.7	35.5
	30.0	26.5	28.8	29.0		28.1	28.2	28.0
		2.0	1.3			0.5		3.2
	4	19	33	4	0	6	4	6
C	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	0.5	0.4	0.6	0.6		0.6	0.6	0.8
	0.8	1.0	1.0	0.8		0.9	0.8	1.0
	0.1	0.0	0.1	0.4		0.3	0.3	0.5
		0.3	0.3			0.2		0.2
	4	21	34	4	0	6	4	6
P	3 3	2 4	2 2	3 4		1 3	3 4	2 3
	9.0	9.0	8.5	8.6		9.7	10.1	10.8
	10.6	11.5	12.2	10.0		11.8	12.0	11.5
	7.6	6.6	5.2	8.0		8.0	9.0	10.C
		1.2	1.5			1.2		
	4	21	34	4	0	6	4	4
W	3 3	2 4	2 2	3 4		1 3	3 4	3 3
	4.5	4.0	3.0	5.5		4.5	7.5	6.0
	5.0	10.7	9.2	7.6		7.6	9.7	7.6
	2.5	1.5	1.5	3.5		1.5	5.6	4.5
		2.2	1.5			2.2		1.0
	4	21	33	4	0	6	4	6
W(X)	4.0-	3.5-	3.0-	5.2-		4.1-	4.8-	3.8-
	2.5-	1.0-	1.5-	3.5-		1.5-	3.2-	0.9-
	4.8-	8.1-	8.6-	7.1-		7.1-	6.5-	6.2-
		1.8	1.5			2.0		1.8
W(Y)	1.7	0.2	0.1-	1.7-		0.6	5.5-	3.0
	3.2	4.8	0.0	0.7-		2.7	3.6-	7.1
	0.4	7.0-	3.1-	2.6-		2.6-	9.1-	2.2-
		2.5	0.6			1.7		3.1

JUNE 1965

	LONGITUDE WEST							
	170–165	165–160	160–155	155–150	150–145	145–140	140–135	135–130
T(A)	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	27.0	26.5	27.8	27.0	27.0	27.0	25.6	26.0
	29.2	29.2	30.0	28.1	28.1	27.0	26.5	27.5
	25.5	23.7	25.0	26.0	24.2	26.5	23.7	24.5
	1.2	1.5	1.1	0.7	0.9			
	5	15	34	15	14	4	4	3
T(W)-T(A)	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	2.5	2.5	0.2-	2.2	1.3	0.8	2.5	1.3
	5.0	6.1	3.8	5.0	6.6	3.3	3.8	2.2
	0.0	0.5-	2.8-	0.6	0.2-	2.7-	1.5	0.5
	1.7	2.0	1.3	1.2	1.8			
	5	15	34	15	14	4	4	3
E(W)-E(A)	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	10.1	8.8	5.8	10.1	7.0	7.1	9.0	5.1
	12.7	14.2	13.3	14.5	14.6	12.6	9.8	6.0
	6.0	4.2	1.6	5.1	4.2	0.1	7.1	3.5
	2.3	3.0	2.2	2.8	3.5			
	5	15	34	15	14	4	4	3
EA	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	29.0	29.3	30.5	28.3	29.7	28.1	27.0	29.1
	31.0	33.0	35.0	32.0	31.2	29.5	28.7	31.0
	28.2	26.5	27.6	25.2	27.5	27.1	25.3	27.0
	1.0	1.8	1.5	1.6	1.0			
	5	15	34	15	14	4	4	3
C	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	0.9	0.6	0.5	0.4	0.6	0.7	0.8	0.9
	1.0	1.0	1.0	0.8	1.0	0.9	1.0	1.0
	0.6	0.0	0.1	0.0	0.0	0.3	0.6	0.9
	0.2	0.3	0.3	0.2	0.4			
	5	15	34	15	14	4	4	2
P	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	3.2	10.6	9.3	11.3	10.0	10.8	10.3	10.0
	9.6	13.0	12.5	13.0	11.7	12.5	11.7	11.5
	6.1-	7.0	5.6	9.6	8.2	9.0	9.0	9.0
	6.8	1.7	1.5	1.0	1.0			
	5	15	34	15	14	4	4	3
W	4 3	3 4	2 2	3 4	3 3	3 3	4 4	4 2
	4.7	5.2	3.2	4.1	5.3	5.1	8.5	4.7
	6.1	10.2	8.7	8.7	9.2	7.1	12.3	6.1
	2.0	2.5	0.5	1.0	3.0	3.5	5.0	2.0
	1.7	2.2	1.5	2.3	1.6			
	5	13	33	15	14	4	4	3
W(X)	3.0-	4.5-	3.0-	3.7-	4.8-	3.0-	2.5-	2.8
	1.5	0.0	2.6	1.0-	0.0	0.1-	3.0	5.7
	5.7-	9.5-	8.7-	8.5-	9.0-	4.8-	7.8-	1.0
	3.5	2.6	1.7	2.3	2.0			
W(Y)	1.2	1.5-	0.3-	0.8-	0.6	1.1	0.5	2.5
	2.6	2.0	1.5	2.0	5.0	7.1	8.6	6.0
	2.1-	5.0-	4.7-	3.0-	3.0-	4.0-	9.5-	0.7-
	1.7	1.7	1.0	1.3	1.6			

APPENDIX TABLE B

Interpolated values of meteorological properties and heat exchange processes, lat. 0° to 35° N., long. 130° to 170° W., at the center of 5° square units of area for each month, July 1963 to June 1965, presented in geographic format with decimal point at center of the 5° square

List of notations

- T(W) Sea surface temperature, degrees Celsius.
- T(A) Air temperature, degrees Celsius.
- E(A) Vapor pressure of air, millibars.
- C Cloudiness, proportion of sky covered.
- W Wind speed, meters per second.
- Q(S) Radiation from sun and sky, calories per square centimeter per day, positive if water gains heat.
- Q(B) Effective back radiation, calories per square centimeter per day, positive if water loses heat.
- Q(E) Heat of evaporation, calories per square centimeter per day, positive if water loses heat.
- Q(C) Conduction of sensible heat, calories per square centimeter per day, positive if water loses heat.
- Q(N) Net heat exchange across the sea surface, calories per square centimeter per day, positive if water gains heat.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	23.0	22.4	21.7	21.1	20.7	20.3	19.5	18.8
27	23.8	23.7	23.2	22.7	22.3	21.4	20.5	19.7
22	25.2	24.7	24.5	24.0	23.3	22.7	22.0	21.7
17	25.7	25.0	25.3	24.5	23.9	24.2	24.2	23.8
12	26.5	26.5	26.3	25.7	26.2	26.5	26.3	26.0
7	28.0	28.0	27.3	27.0	28.0	27.7	27.5	27.5
2	27.7	27.8	27.9	27.9	27.7	27.5	27.7	27.0

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	23.7	22.7	21.7	21.0	20.7	20.0	19.5	19.0
27	24.7	24.0	23.2	22.5	22.2	21.5	20.6	19.9
22	25.5	25.2	24.7	24.0	23.5	23.2	22.4	21.2
17	26.5	26.2	25.5	24.9	24.4	24.1	24.0	23.1
12	26.7	26.5	26.0	25.7	25.8	25.7	25.2	25.5
7	27.0	27.0	26.7	26.5	26.8	27.0	26.3	25.8
2	27.8	27.7	27.7	26.9	26.7	26.5	26.5	26.3

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	23.3	21.6	20.5	19.4	18.6	18.8	17.8	16.8
27	25.0	24.2	22.8	22.1	21.0	19.7	18.8	17.3
22	26.2	25.8	24.3	23.5	23.1	23.1	22.2	20.4
17	27.2	26.7	25.9	24.9	24.3	24.2	24.5	23.4
12	29.0	28.6	27.9	27.4	27.0	28.0	28.6	27.1
7	28.2	30.0	29.0	28.6	29.5	30.0	30.0	28.2
2	29.3	29.8	28.8	26.7	27.0	27.5	27.6	27.5

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.8
27	0.6	0.5	0.5	0.7	0.7	0.8	0.8	0.8
22	0.5	0.5	0.4	0.6	0.6	0.6	0.8	0.9
17	0.6	0.6	0.5	0.5	0.5	0.6	0.8	0.8
12	0.5	0.5	0.6	0.7	0.6	0.6	0.8	0.5
7	0.4	0.6	0.8	0.9	1.0	0.9	0.8	0.5
2	0.2	0.3	0.5	0.6	0.6	0.5	0.4	0.3

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	6.7	6.3	6.0	6.0	6.0	6.0	6.3	6.4
27	7.7	6.6	6.7	7.0	7.5	7.0	6.0	7.0
22	7.5	7.5	7.7	8.1	7.7	6.6	6.2	8.0
17	7.1	7.5	8.0	8.0	7.8	7.0	7.0	7.0
12	7.8	9.2	9.0	8.2	7.4	7.1	6.6	6.4
7	8.8	9.5	8.0	6.4	4.7	4.1	4.0	4.0
2	8.3	7.0	4.0	4.0	4.2	5.1	5.3	5.3

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	451.	451.	451.	451.	399.	341.	341.	341.
27	447.	494.	494.	395.	395.	338.	338.	338.
22	488.	488.	529.	441.	441.	441.	334.	273.
17	430.	430.	475.	475.	475.	430.	326.	326.
12	460.	460.	416.	368.	416.	416.	315.	460.
7	478.	399.	302.	247.	187.	247.	302.	441.
2	514.	487.	420.	380.	380.	420.	456.	487.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	95.	105.	111.	116.	106.	95.	93.	93.
27	87.	106.	114.	99.	101.	89.	90.	93.
22	100.	99.	115.	104.	102.	97.	78.	79.
17	83.	79.	103.	103.	103.	103.	81.	90.
12	93.	97.	95.	83.	99.	101.	84.	108.
7	119.	99.	77.	65.	60.	65.	82.	121.
2	108.	106.	100.	110.	109.	115.	123.	121.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	121.	126.	116.	120.	125.	107.	113.	117.
27	164.	126.	145.	157.	208.	167.	114.	165.
22	201.	181.	246.	290.	208.	110.	92.	243.
17	170.	168.	275.	253.	210.	171.	162.	174.
12	217.	378.	382.	261.	234.	195.	137.	153.
7	570.	530.	317.	166.	127.	92.	84.	109.
2	389.	216.	112.	141.	139.	158.	173.	146.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-19.	-8.	1.	3.	1.	8.	1.	-6.
27	-28.	-8.	1.	6.	3.	-3.	-3.	-6.
22	-9.	-15.	-7.	1.	-7.	-14.	-10.	16.
17	-23.	-36.	-7.	-13.	-16.	3.	6.	20.
12	-7.	1.	11.	1.	12.	23.	29.	13.
7	35.	38.	20.	13.	23.	12.	20.	27.
2	-4.	3.	4.	16.	17.	21.	26.	15.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	255.	229.	224.	213.	168.	133.	136.	137.
27	224.	272.	235.	134.	84.	86.	138.	98.
22	196.	224.	175.	48.	138.	248.	174.	-67.
17	201.	220.	105.	133.	178.	154.	77.	42.
12	157.	-16.	-73.	23.	71.	98.	65.	186.
7	-247.	-268.	-112.	3.	-23.	78.	117.	185.
2	21.	163.	204.	113.	116.	127.	134.	205.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
32	24.1	23.7	23.1	22.6	21.9	21.4	20.8	19.8
27	25.3	25.3	25.0	24.2	23.1	22.1	21.1	20.5
22	26.2	26.1	25.7	24.6	23.7	23.3	22.6	21.3
17	26.2	26.6	26.2	25.3	24.4	23.9	23.8	23.7
12	27.3	27.2	26.8	26.3	25.7	26.3	26.6	25.7
7	27.8	27.7	27.7	27.4	27.1	27.2	27.4	27.2
2	28.4	28.3	27.5	27.5	27.5	27.5	27.5	27.5

LATITUDE NORTH

T(A)	167	162	157	152	147	142	137	132
32	23.6	23.2	23.0	22.4	21.8	21.5	21.0	21.0
27	25.3	25.0	24.1	22.9	22.9	22.3	21.4	21.0
22	26.3	25.9	25.1	24.3	23.7	23.4	22.8	21.8
17	26.8	26.6	26.2	25.0	24.7	24.5	24.0	23.6
12	27.9	27.5	27.1	26.2	26.0	26.8	26.9	25.8
7	27.2	26.7	26.2	26.1	27.0	27.0	27.0	27.0
2	27.7	27.5	27.5	27.0	27.0	27.0	27.0	27.0

LATITUDE NORTH

E(A)	167	162	157	152	147	142	137	132
32	23.9	24.0	23.8	21.9	20.7	20.2	19.3	18.7
27	25.3	25.1	23.4	21.7	20.8	19.8	18.9	18.0
22	26.7	26.1	24.9	23.5	23.0	22.2	20.7	20.1
17	29.1	28.1	26.3	25.4	25.0	25.1	25.0	24.0
12	29.3	28.7	28.5	29.1	29.0	29.0	30.1	29.0
7	29.5	28.9	29.0	28.9	30.0	30.5	29.8	30.0
2	28.7	28.5	29.1	29.5	29.7	28.9	28.5	28.3

LATITUDE NORTH

C	167	162	157	152	147	142	137	132
32	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6
27	0.4	0.6	0.5	0.6	0.6	0.6	0.7	0.7
22	0.6	0.5	0.5	0.5	0.6	0.6	0.7	0.9
17	0.6	0.5	0.6	0.5	0.6	0.7	0.8	0.8
12	0.5	0.6	0.7	0.6	0.6	0.6	0.7	0.7
7	0.7	0.8	0.7	0.8	0.8	0.8	0.7	0.7
2	0.5	0.4	0.5	0.9	0.9	0.9	0.8	0.8

LATITUDE NORTH

W	167	162	157	152	147	142	137	132
32	5.8	7.2	7.3	5.8	5.3	4.8	5.0	5.3
27	5.2	6.0	7.0	7.2	6.4	6.0	6.2	6.0
22	5.7	6.6	7.2	7.3	7.3	7.5	7.9	5.9
17	6.3	6.8	7.2	7.6	8.0	8.0	7.3	6.8
12	5.8	6.5	7.1	7.9	8.0	7.0	6.1	6.2
7	5.5	5.8	6.1	6.0	5.3	3.4	5.8	5.8
2	4.5	5.1	4.5	3.7	3.8	6.0	7.5	7.5

LATITUDE NORTH

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
32	419.	370.	370.	370.	370.	370.	419.	419.
27	510.	425.	470.	425.	425.	425.	376.	376.
22	429.	474.	474.	474.	429.	429.	379.	265.
17	427.	472.	427.	472.	427.	377.	323.	323.
12	466.	421.	372.	421.	421.	421.	372.	372.
7	364.	312.	364.	312.	312.	312.	364.	364.
2	441.	479.	441.	247.	247.	247.	302.	302.

LATITUDE NORTH

Q(B)	167	162	157	152	147	142	137	132
32	109.	98.	93.	99.	101.	100.	112.	102.
27	114.	103.	125.	126.	115.	112.	102.	102.
22	94.	108.	117.	117.	105.	106.	99.	68.
17	80.	99.	97.	111.	95.	81.	75.	81.
12	88.	86.	77.	89.	83.	81.	72.	77.
7	87.	83.	99.	86.	68.	68.	83.	79.
2	108.	116.	96.	64.	63.	65.	78.	78.

LATITUDE NORTH

Q(E)	167	162	157	152	147	142	137	132
32	123.	161.	139.	111.	99.	83.	87.	77.
27	121.	153.	242.	269.	181.	147.	139.	132.
22	144.	196.	255.	242.	203.	225.	285.	108.
17	108.	178.	240.	250.	239.	192.	138.	140.
12	139.	179.	198.	205.	162.	144.	97.	83.
7	147.	167.	178.	161.	101.	57.	133.	119.
2	147.	171.	110.	83.	83.	166.	288.	296.

LATITUDE NORTH

Q(C)	167	162	157	152	147	142	137	132
32	12.	15.	3.	5.	3.	-2.	-4.	-26.
27	1.	8.	25.	38.	6.	-5.	-8.	-12.
22	-3.	6.	18.	9.	1.	-3.	-7.	-12.
17	-15.	1.	1.	10.	-10.	-20.	-6.	3.
12	-14.	-8.	-9.	4.	-10.	-14.	-8.	-3.
7	14.	23.	37.	31.	3.	3.	10.	5.
2	13.	17.	1.	8.	8.	12.	15.	15.

LATITUDE NORTH

Q(N)	167	162	157	152	147	142	137	132
32	176.	98.	136.	156.	168.	191.	225.	266.
27	275.	162.	77.	-9.	124.	171.	143.	155.
22	194.	165.	85.	106.	120.	101.	3.	102.
17	255.	195.	90.	102.	103.	125.	117.	99.
12	253.	165.	106.	125.	186.	211.	211.	215.
7	118.	39.	50.	33.	140.	184.	139.	161.
2	174.	175.	235.	93.	93.	4.	-80.	-88.

LATITUDE NORTH

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.3	24.2	23.8	23.4	22.9	22.4	22.0	21.4
27	25.7	25.3	25.2	24.5	23.9	23.1	22.5	22.2
22	26.3	25.7	25.7	25.3	24.7	24.1	23.0	22.8
17	26.7	26.3	26.4	26.3	25.7	25.0	24.7	24.7
12	27.9	27.1	27.3	27.0	27.1	27.0	26.6	26.5
7	29.5	29.1	28.2	27.5	27.5	27.4	27.4	27.3
2	28.5	28.2	27.7	27.4	27.2	27.0	27.1	27.2

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.5	24.0	23.5	23.1	22.5	22.0	21.6	21.2
27	25.9	25.2	24.7	24.3	23.8	22.9	22.4	22.3
22	26.3	26.0	25.3	24.9	24.5	24.0	23.2	23.4
17	26.6	26.4	26.2	25.7	25.0	24.8	24.7	24.3
12	26.5	26.3	26.3	26.5	27.0	26.7	26.7	26.8
7	26.9	27.1	26.8	26.8	27.0	27.0	26.0	26.0
2	27.4	27.8	28.0	27.0	27.0	26.6	26.0	26.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	25.2	24.2	22.6	22.2	21.3	20.4	19.7	19.6
27	25.9	25.7	23.9	24.5	22.8	22.0	21.6	21.0
22	27.3	26.4	25.3	24.5	24.4	24.3	23.5	23.2
17	28.1	27.2	26.6	26.2	26.4	26.3	25.1	24.3
12	29.1	27.9	28.1	29.1	29.4	28.6	28.0	26.6
7	29.4	29.3	29.0	29.2	29.6	29.7	28.8	28.7
2	28.6	28.4	28.3	28.6	28.1	27.3	26.8	26.8

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5
27	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
22	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.6
17	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.6
12	0.6	0.6	0.6	0.5	0.4	0.3	0.4	0.5
7	0.8	0.8	0.7	0.5	0.5	0.7	0.8	0.9
2	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.8

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	5.5	5.7	5.7	5.9	6.2	6.2	6.0	5.6
27	5.8	6.5	6.0	4.9	5.2	5.5	5.6	5.2
22	6.3	6.7	7.2	6.3	5.4	5.9	7.8	7.4
17	6.8	7.2	6.7	6.3	5.8	4.9	5.3	5.7
12	6.8	6.7	6.0	4.8	4.7	3.8	4.0	5.3
7	4.7	4.7	4.3	3.6	3.7	5.3	5.8	5.6
2	4.5	4.3	4.0	4.5	4.5	4.9	10.3	10.2

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	397.	397.	359.	397.	397.	359.	397.	397.
27	418.	453.	418.	418.	418.	418.	418.	418.
22	473.	436.	436.	436.	436.	436.	473.	394.
17	448.	448.	405.	405.	448.	486.	486.	405.
12	413.	413.	413.	456.	495.	529.	495.	456.
7	314.	314.	367.	459.	459.	367.	314.	257.
2	458.	458.	458.	458.	458.	414.	414.	314.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	104.	112.	110.	120.	124.	118.	129.	126.
27	103.	114.	119.	112.	116.	119.	119.	118.
22	108.	100.	113.	115.	112.	111.	116.	96.
17	100.	100.	98.	105.	112.	112.	114.	107.
12	107.	102.	104.	102.	102.	112.	104.	100.
7	104.	96.	99.	104.	101.	83.	88.	75.
2	113.	105.	96.	103.	102.	99.	110.	91.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	95.	117.	137.	137.	150.	152.	146.	114.
27	144.	159.	176.	100.	120.	118.	108.	100.
22	159.	171.	241.	181.	123.	117.	178.	148.
17	184.	216.	204.	187.	133.	84.	106.	134.
12	229.	208.	175.	101.	97.	84.	86.	144.
7	185.	171.	129.	84.	82.	119.	155.	145.
2	152.	138.	113.	115.	116.	136.	710.	718.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-5.	5.	7.	8.	10.	10.	10.	5.
27	-5.	3.	12.	4.	3.	5.	3.	-3.
22	1.	-8.	12.	10.	5.	3.	-7.	-18.
17	3.	-3.	6.	15.	17.	4.	1.	10.
12	38.	22.	24.	10.	2.	5.	-2.	-7.
7	49.	38.	24.	10.	8.	9.	33.	29.
2	20.	7.	-5.	8.	4.	8.	45.	49.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	204.	163.	106.	133.	113.	80.	113.	153.
27	176.	178.	111.	202.	179.	176.	188.	202.
22	206.	174.	71.	130.	196.	206.	186.	169.
17	161.	135.	97.	99.	187.	286.	266.	155.
12	40.	82.	110.	244.	295.	329.	308.	220.
7	-24.	10.	116.	260.	269.	157.	39.	8.
2	173.	209.	255.	233.	236.	172.	-451.	-544.

T(W)	167	162	157	152	147	142	137	132
32	24.0	23.5	22.7	22.1	21.6	21.0	20.6	20.2
27	25.7	25.3	24.5	23.9	23.3	22.7	22.2	21.7
22	26.2	25.7	25.4	24.8	24.4	24.0	23.3	22.7
17	26.7	26.4	26.3	25.7	25.7	25.5	25.0	24.7
12	27.6	27.2	26.8	26.9	27.2	27.3	27.0	26.1
7	29.0	28.6	28.0	27.4	27.5	27.5	27.4	27.3
2	28.7	27.7	27.1	27.2	27.3	27.3	27.4	27.4

T(A)	167	162	157	152	147	142	137	132
32	23.2	22.6	21.9	20.9	20.7	20.0	19.7	19.5
27	25.3	25.0	24.3	23.5	22.9	22.0	21.5	21.0
22	26.1	25.7	25.3	24.5	24.0	23.7	23.3	23.0
17	26.8	26.9	26.1	25.6	25.3	25.2	24.9	24.5
12	27.6	26.8	26.5	26.3	26.0	26.0	26.0	26.0
7	27.9	27.3	27.3	27.2	27.0	27.0	27.0	27.0
2	28.0	28.0	28.0	28.1	27.2	27.0	27.0	27.0

E(A)	167	162	157	152	147	142	137	132
32	24.0	22.2	20.1	18.9	18.2	17.5	17.2	17.0
27	25.3	24.6	23.6	22.1	20.6	19.4	19.0	18.9
22	26.2	25.5	24.7	23.5	22.9	22.2	21.5	21.0
17	28.1	28.0	26.5	25.3	25.9	25.1	24.0	23.2
12	29.1	29.6	28.9	28.8	29.1	29.2	28.6	26.5
7	32.0	30.5	29.1	28.6	28.3	28.3	28.4	29.0
2	31.0	29.4	28.3	27.3	26.8	26.7	26.8	27.0

C	167	162	157	152	147	142	137	132
32	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
27	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
22	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7
17	0.6	0.6	0.5	0.5	0.6	0.5	0.6	0.7
12	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5
7	1.0	0.8	0.7	0.6	0.6	0.6	0.8	0.5
2	0.7	0.7	0.6	0.4	0.4	0.5	0.7	0.8

W	167	162	157	152	147	142	137	132
32	7.3	7.2	6.5	6.6	6.7	6.5	6.5	6.0
27	6.1	5.6	5.8	6.3	6.2	5.4	5.2	5.4
22	7.2	6.6	7.0	6.8	6.6	6.1	4.9	5.8
17	7.2	7.4	7.9	7.7	7.0	6.8	7.4	7.5
12	6.5	7.1	7.2	7.6	6.9	7.2	7.3	6.2
7	5.7	5.8	4.7	7.2	8.4	9.3	9.6	8.0
2	5.9	5.1	4.8	7.2	9.2	10.6	11.5	11.4

(Row labels: LATITUDE NORTH; column headings: LONGITUDE WEST)

Q(S)	167	162	157	152	147	142	137	132
32	252.	285.	285.	285.	285.	285.	285.	285.
27	346.	346.	346.	346.	346.	346.	346.	313.
22	375.	375.	375.	375.	375.	375.	340.	300.
17	363.	363.	401.	401.	363.	401.	363.	321.
12	290.	290.	339.	339.	383.	383.	383.	424.
7	187.	302.	352.	399.	399.	399.	302.	440.
2	363.	363.	410.	492.	492.	454.	363.	311.

Q(B)	167	162	157	152	147	142	137	132
32	102.	119.	124.	132.	131.	134.	133.	131.
27	113.	114.	115.	123.	128.	135.	136.	126.
22	106.	107.	111.	117.	120.	121.	110.	97.
17	90.	85.	107.	109.	102.	112.	105.	98.
12	70.	73.	83.	88.	103.	104.	102.	105.
7	55.	83.	89.	93.	98.	98.	77.	100.
2	84.	75.	80.	98.	112.	109.	92.	80.

Q(E)	167	162	157	152	147	142	137	132
32	186.	211.	187.	199.	203.	185.	177.	146.
27	170.	148.	145.	177.	184.	154.	138.	132.
22	243.	191.	225.	212.	196.	170.	116.	134.
17	213.	212.	324.	298.	205.	204.	260.	281.
12	191.	189.	192.	239.	191.	217.	225.	164.
7	157.	175.	134.	245.	436.	556.	564.	317.
2	173.	131.	118.	275.	622.	784.	878.	849.

Q(C)	167	162	157	152	147	142	137	132
32	24.	26.	21.	32.	24.	26.	24.	17.
27	10.	7.	5.	10.	10.	15.	15.	15.
22	3.	1.	3.	9.	11.	8.	1.	-7.
17	-3.	-15.	7.	4.	12.	9.	3.	6.
12	1.	12.	9.	19.	33.	38.	29.	3.
7	25.	30.	14.	6.	17.	19.	16.	10.
2	17.	-7.	-18.	-26.	4.	13.	19.	19.

Q(N)	167	162	157	152	147	142	137	132
32	-60.	-71.	-48.	-79.	-74.	-61.	-50.	-9.
27	53.	77.	81.	36.	24.	42.	57.	41.
22	23.	77.	37.	38.	49.	77.	114.	77.
17	64.	82.	-38.	-10.	44.	77.	-6.	-65.
12	29.	17.	55.	-7.	56.	25.	27.	152.
7	-52.	14.	116.	56.	-153.	-275.	-355.	14.
2	89.	164.	230.	146.	-247.	-452.	-626.	-638.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.9	20.9	20.5	19.9	19.5	18.9	18.8	18.8
27	23.9	23.7	23.3	22.7	22.1	21.8	21.6	21.2
22	25.3	25.1	24.9	24.4	23.9	23.6	23.3	22.7
17	26.3	26.3	26.2	26.0	25.9	25.2	24.8	24.5
12	26.8	26.8	26.8	26.9	26.8	26.3	26.3	27.1
7	28.2	28.3	27.9	28.3	28.6	27.5	27.1	27.4
2	28.1	27.5	27.5	28.4	27.7	26.9	26.8	26.7

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.0	20.0	19.2	19.2	19.0	17.8	18.0	18.0
27	22.7	22.2	22.0	21.7	21.6	21.3	21.0	20.1
22	25.0	24.7	24.3	23.8	23.3	23.0	22.7	22.2
17	26.0	26.2	25.6	25.3	24.7	24.4	24.2	24.1
12	27.0	26.5	26.4	27.0	26.9	26.7	26.8	26.3
7	27.8	27.0	27.0	27.0	27.0	27.0	26.3	26.0
2	28.0	27.7	27.8	27.7	27.4	26.8	26.0	26.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	18.6	17.7	17.7	17.8	17.3	16.0	16.3	16.1
27	21.9	20.3	20.5	21.0	19.5	19.1	18.8	18.2
22	25.2	23.8	23.2	22.8	22.6	22.8	22.3	22.2
17	26.3	26.1	25.3	25.4	25.3	25.1	24.9	23.9
12	27.2	27.6	28.3	29.2	29.1	29.2	28.4	27.4
7	28.9	29.2	28.6	29.0	30.1	30.1	30.0	29.0
2	28.3	28.3	28.1	28.8	28.8	28.3	27.7	27.7

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
27	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7
22	0.6	0.6	0.4	0.5	0.5	0.6	0.6	0.6
17	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.7
12	0.5	0.7	0.8	0.7	0.7	0.6	0.6	0.7
7	0.6	0.8	0.8	0.8	0.8	0.9	1.0	1.0
2	0.4	0.5	0.6	0.7	0.7	0.6	0.6	0.6

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	9.3	7.7	7.7	7.4	7.6	7.8	7.2	6.8
27	8.3	7.1	6.7	6.7	6.7	6.2	5.7	6.4
22	6.8	6.6	7.0	6.7	6.5	6.4	6.6	7.2
17	6.6	7.3	8.3	8.1	6.3	6.5	6.7	7.3
12	7.5	7.3	7.2	7.2	6.2	4.7	5.7	6.6
7	6.1	7.5	4.1	5.1	4.9	4.7	6.4	5.9
2	3.8	3.8	3.5	4.2	4.5	4.8	5.9	6.5

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	189.	189.	189.	189.	189.	189.	189.	189.
27	219.	248.	248.	219.	248.	219.	219.	219.
22	281.	281.	337.	311.	311.	281.	281.	281.
17	345.	345.	345.	375.	345.	345.	313.	276.
12	379.	303.	259.	303.	303.	343.	343.	303.
7	369.	279.	279.	279.	279.	228.	173.	173.
2	471.	434.	393.	347.	347.	393.	393.	393.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	116.	120.	124.	115.	114.	125.	120.	121.
27	113.	133.	129.	112.	122.	111.	113.	121.
22	103.	109.	130.	123.	123.	113.	114.	113.
17	109.	107.	116.	123.	123.	118.	107.	98.
12	100.	88.	76.	78.	78.	82.	84.	95.
7	95.	87.	83.	87.	88.	62.	54.	63.
2	107.	97.	88.	91.	85.	92.	103.	101.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	408.	275.	250.	184.	198.	238.	170.	153.
27	392.	277.	216.	173.	188.	161.	141.	170.
22	190.	206.	243.	205.	174.	151.	159.	165.
17	201.	264.	440.	380.	190.	170.	166.	221.
12	283.	246.	213.	189.	135.	73.	111.	215.
7	207.	328.	118.	162.	146.	99.	135.	155.
2	118.	101.	95.	135.	122.	111.	156.	179.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	34.	28.	40.	21.	16.	34.	23.	22.
27	40.	43.	35.	27.	14.	13.	14.	28.
22	9.	11.	17.	16.	16.	16.	16.	15.
17	8.	3.	20.	23.	30.	21.	16.	12.
12	-6.	9.	12.	-3.	-3.	-8.	-12.	21.
7	10.	39.	15.	27.	32.	10.	21.	33.
2	2.	-4.	-5.	12.	6.	2.	19.	19.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-369.	-234.	-225.	-131.	-139.	-209.	-124.	-107.
27	-327.	-205.	-133.	-94.	-77.	-66.	-49.	-100.
22	-21.	-46.	-53.	-34.	-3.	2.	-9.	-12.
17	28.	-29.	-231.	-153.	3.	37.	24.	-55.
12	3.	-40.	-42.	40.	94.	196.	160.	-29.
7	58.	-174.	64.	4.	14.	57.	-37.	-78.
2	243.	240.	214.	110.	135.	187.	115.	95.

LONGITUDE WEST

	T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	17.9	18.1	18.0	18.0	18.5	18.5	18.6	18.0
	27	21.7	21.8	22.0	21.9	21.6	21.1	20.7	20.0
	22	24.2	24.3	24.3	24.0	23.3	22.8	22.1	21.6
	17	25.3	25.2	25.3	25.1	24.2	23.9	23.6	23.1
	12	25.7	25.9	26.2	26.1	25.9	25.6	25.4	25.3
	7	27.1	27.2	27.0	26.8	27.0	28.0	26.8	26.7
	2	27.3	27.2	27.1	27.3	27.8	28.1	27.6	27.6

	T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	15.7	16.0	17.1	18.0	18.9	18.6	18.1	17.5
	27	20.1	20.3	20.7	21.1	21.3	20.7	19.9	19.1
	22	22.7	23.0	23.3	23.2	22.7	22.3	21.7	20.7
	17	24.5	24.8	25.2	24.6	24.2	23.7	23.4	23.0
	12	26.0	26.3	25.7	25.4	25.3	25.5	25.8	25.5
	7	27.7	28.0	27.0	25.9	26.0	26.0	26.0	26.0
	2	28.C	28.0	27.3	26.7	26.4	26.1	26.0	26.0

	E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	13.6	13.5	16.0	17.3	17.7	17.7	16.8	15.7
	27	17.8	18.0	19.7	20.2	20.0	18.5	17.5	17.0
	22	19.8	21.0	22.7	22.5	21.1	19.3	18.8	20.5
	17	23.5	24.4	25.4	25.2	24.4	23.8	23.0	21.5
	12	26.2	28.3	28.2	26.7	26.6	27.0	28.3	28.2
	7	28.6	30.1	28.7	27.6	27.7	29.4	30.0	28.4
	2	28.5	28.6	28.8	28.7	29.1	29.3	28.3	27.5

	C	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
	27	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.7
	22	0.5	0.4	0.4	0.5	0.5	0.5	0.5	C.6
	17	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.6
	12	0.5	0.5	0.7	0.8	0.8	0.6	0.5	0.7
	7	0.6	0.8	0.8	0.8	0.8	0.9	0.8	0.8
	2	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7

	W	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	10.5	10.3	10.1	9.5	9.1	7.5	6.5	6.2
	27	8.3	7.7	8.1	8.0	7.7	6.7	5.9	5.7
	22	5.8	5.3	5.2	6.1	6.6	6.4	6.7	6.4
	17	6.3	5.8	5.4	4.9	5.9	6.3	7.2	7.2
	12	6.7	7.8	7.4	7.5	8.3	7.7	7.0	7.5
	7	7.0	8.1	8.2	8.5	9.2	9.5	9.2	7.9
	2	5.3	5.1	5.4	7.9	8.7	9.1	8.7	8.5

LONGITUDE WEST

	Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	181.	181.	16C.	160.	160.	160.	160.	160.
	27	191.	216.	216.	191.	191.	216.	191.	191.
	22	277.	301.	301.	277.	277.	277.	277.	251.
	17	316.	316.	316.	343.	343.	343.	316.	286.
	12	354.	354.	283.	242.	242.	320.	354.	283.
	7	351.	266.	266.	266.	266.	217.	266.	266.
	2	381.	381.	381.	336.	336.	336.	336.	336.

	Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	158.	157.	121.	106.	101.	104.	115.	118.
	27	129.	139.	130.	111.	106.	123.	119.	121.
	22	146.	146.	136.	126.	128.	134.	133.	122.
	17	124.	116.	108.	120.	116.	121.	116.	111.
	12	101.	92.	87.	84.	82.	95.	91.	78.
	7	82.	57.	70.	84.	85.	83.	77.	80.
	2	82.	80.	87.	88.	98.	105.	102.	105.

	Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	568.	583.	350.	221.	221.	123.	114.	112.
	27	418.	320.	313.	268.	223.	173.	147.	128.
	22	218.	172.	135.	162.	193.	207.	208.	125.
	17	206.	156.	125.	107.	119.	134.	189.	212.
	12	177.	196.	190.	248.	336.	218.	111.	131.
	7	207.	265.	328.	408.	514.	575.	322.	274.
	2	139.	126.	128.	317.	471.	553.	495.	511.

	Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	92.	86.	36.	1.	-15.	-3.	13.	13.
	27	53.	46.	42.	26.	10.	11.	19.	21.
	22	35.	28.	21.	20.	16.	13.	11.	23.
	17	20.	10.	3.	10.	1.	5.	6.	3.
	12	-8.	-13.	15.	21.	20.	4.	-12.	-6.
	7	-17.	-26.	1.	31.	37.	76.	30.	22.
	2	-15.	-17.	-5.	19.	49.	73.	56.	54.

	Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	-638.	-647.	-348.	-168.	-148.	-64.	-82.	-83.
	27	-410.	-290.	-271.	-215.	-148.	-92.	-95.	-80.
	22	-122.	-46.	10.	-31.	-60.	-77.	-76.	-20.
	17	-35.	35.	81.	106.	108.	83.	5.	-41.
	12	85.	79.	-10.	-111.	-197.	4.	164.	81.
	7	79.	-30.	-134.	-258.	-371.	-517.	-163.	-110.
	2	176.	192.	171.	-88.	-282.	-394.	-317.	-335.

T(W)	LONGITUDE WEST 167	162	157	152	147	142	137	132
LATITUDE NORTH 32	15.9	15.9	16.3	17.0	17.4	17.0	17.0	16.7
27	20.1	20.3	20.5	20.6	20.7	20.0	19.6	18.8
22	23.3	23.2	23.2	22.8	22.2	21.3	20.7	20.5
17	24.7	24.6	24.4	24.0	23.2	22.6	22.2	22.0
12	25.6	25.9	25.7	25.4	25.1	24.2	24.2	24.4
7	26.7	27.1	26.7	26.3	26.3	26.3	26.3	26.2
2	27.2	27.3	27.1	26.9	26.5	26.8	27.2	27.5

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.8	16.7	17.0	16.8	16.8	16.7	16.3	16.0
27	20.1	20.2	20.6	20.4	20.0	19.3	18.8	18.0
22	23.0	23.0	22.9	22.5	22.1	21.4	20.7	20.3
17	24.5	24.5	24.3	23.7	22.2	22.8	22.3	21.9
12	25.6	25.7	25.3	25.3	24.3	24.2	24.7	25.0
7	26.6	26.3	25.8	25.5	25.2	25.6	25.9	26.0
2	27.0	27.0	27.0	26.0	26.0	26.0	26.0	25.5

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	15.8	15.9	16.1	16.2	15.9	15.3	14.6	14.1
27	18.2	19.3	19.9	19.6	18.4	17.1	15.7	14.9
22	22.0	22.1	21.9	21.1	20.1	18.7	17.8	17.7
17	24.5	24.4	23.5	22.0	21.7	21.1	20.7	20.6
12	25.7	26.3	26.2	25.2	25.7	25.0	25.2	26.0
7	28.2	28.9	27.7	27.3	28.1	28.1	28.4	28.6
2	28.8	30.4	29.1	29.0	28.2	27.5	27.5	28.3

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.6	0.7	0.7	0.7	0.8	0.8	0.7
27	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.7
22	0.5	0.4	0.5	0.6	0.6	0.7	0.8	0.8
17	0.5	0.5	0.4	0.5	0.6	0.7	0.7	0.8
12	0.4	0.5	0.4	0.5	0.8	0.7	0.8	0.7
7	0.6	0.8	0.8	0.8	0.8	0.7	0.6	0.7
2	0.7	0.7	0.7	0.7	0.6	0.4	0.4	0.6

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	8.6	8.0	7.3	7.4	7.8	8.2	7.0	6.6
27	7.6	6.8	6.9	7.7	7.7	7.0	7.4	6.7
22	7.9	7.9	8.3	8.3	8.8	9.5	8.7	7.8
17	8.5	8.2	7.3	7.6	8.4	8.9	9.5	8.8
12	9.2	8.8	8.9	9.0	9.2	9.5	9.1	8.5
7	8.6	10.3	10.2	9.0	8.9	7.8	8.0	8.9
2	7.3	6.5	5.1	6.1	7.1	7.5	6.5	5.5

Q(S)	LONGITUDE WEST 167	162	157	152	147	142	137	132
LATITUDE NORTH 32	174.	197.	174.	174.	174.	149.	149.	174.
27	231.	256.	256.	231.	231.	205.	205.	205.
22	294.	319.	294.	266.	266.	235.	201.	201.
17	330.	330.	358.	330.	299.	264.	264.	226.
12	397.	366.	397.	366.	251.	293.	251.	293.
7	360.	273.	273.	273.	273.	319.	360.	319.
2	343.	343.	343.	343.	388.	465.	465.	388.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	98.	111.	100.	111.	117.	101.	108.	124.
27	118.	125.	120.	116.	126.	118.	124.	125.
22	121.	127.	121.	114.	115.	105.	95.	97.
17	112.	111.	121.	122.	121.	97.	99.	89.
12	113.	107.	116.	109.	86.	89.	71.	79.
7	92.	80.	84.	83.	85.	90.	95.	83.
2	83.	80.	81.	91.	97.	117.	123.	116.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	116.	88.	74.	103.	158.	194.	139.	126.
27	196.	120.	114.	176.	233.	184.	246.	183.
22	279.	266.	327.	334.	395.	461.	384.	262.
17	353.	311.	229.	292.	350.	382.	416.	343.
12	459.	416.	408.	447.	393.	346.	305.	233.
7	373.	531.	557.	423.	360.	240.	248.	314.
2	233.	139.	113.	138.	188.	271.	212.	158.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-31.	-26.	-21.	6.	19.	10.	20.	19.
27	1.	3.	-3.	7.	22.	20.	24.	22.
22	10.	7.	10.	10.	4.	-4.	1.	7.
17	7.	4.	3.	10.	34.	-8.	-4.	4.
12	1.	7.	15.	4.	30.	1.	-19.	-21.
7	4.	33.	37.	29.	39.	22.	13.	8.
2	6.	8.	3.	22.	15.	24.	31.	44.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-10.	25.	22.	-47.	-120.	-157.	-118.	-95.
27	-83.	9.	25.	-68.	-150.	-118.	-189.	-125.
22	-116.	-81.	-165.	-193.	-249.	-327.	-279.	-165.
17	-142.	-96.	5.	-94.	-207.	-208.	-247.	-210.
12	-176.	-165.	-142.	-195.	-258.	-143.	-108.	2.
7	-109.	-372.	-405.	-263.	-212.	-34.	5.	-86.
2	21.	116.	147.	92.	89.	52.	99.	69.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.4	17.0	17.0	16.8	17.0	16.7	16.3	15.8
27	20.3	20.4	20.5	20.5	20.0	19.2	18.6	17.9
22	22.8	22.9	22.5	22.3	22.0	20.8	20.1	19.6
17	24.1	24.2	23.5	22.9	22.8	22.3	21.8	21.2
12	24.9	24.8	24.3	23.8	24.1	24.3	24.2	24.0
7	26.3	26.1	25.4	25.3	25.4	25.5	25.5	25.4
2	27.2	26.7	26.5	26.5	26.5	26.5	26.5	26.5

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.9	16.9	17.0	16.8	16.7	15.8	15.3	15.0
27	20.8	20.7	20.4	20.0	19.3	18.5	17.8	16.7
22	22.8	22.7	22.3	22.0	21.2	20.5	19.8	18.8
17	24.2	24.2	23.6	22.7	22.1	21.9	21.7	21.4
12	25.2	24.9	24.6	24.0	24.3	24.0	23.8	23.3
7	26.2	25.7	26.2	25.7	25.5	25.0	24.4	25.0
2	28.0	26.8	26.7	26.3	26.0	25.3	25.0	26.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.7	16.0	16.6	15.7	14.6	13.6	12.8	12.3
27	20.0	19.3	18.3	17.7	16.4	15.8	15.0	14.0
22	21.8	20.9	19.7	19.0	19.0	19.0	18.9	17.8
17	23.4	22.8	21.8	21.3	20.8	20.7	20.4	20.0
12	26.0	26.1	25.0	23.9	24.1	22.9	24.2	23.7
7	29.1	28.8	26.9	27.2	26.1	25.3	26.2	25.9
2	29.6	28.5	27.9	28.3	27.5	27.0	27.0	27.8

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.8	0.6	0.6	0.6	0.8	0.8	0.8
27	0.5	0.4	0.6	0.6	0.6	0.7	0.7	0.9
22	0.4	0.4	0.4	0.5	0.5	0.6	0.8	0.8
17	0.6	0.4	0.4	0.4	0.7	0.7	0.7	0.9
12	0.7	0.5	0.4	0.5	0.6	0.6	0.7	0.5
7	0.7	0.6	0.4	0.6	0.7	0.8	0.9	0.8
2	0.7	0.6	0.5	0.5	0.5	0.6	0.7	0.8

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	7.9	6.9	6.5	6.8	6.9	7.5	7.1	7.5
27	6.7	6.6	7.1	7.5	7.5	7.7	8.0	8.3
22	6.8	7.3	8.2	8.4	8.3	9.1	10.8	8.5
17	8.0	8.5	8.5	9.7	9.8	8.1	7.6	7.7
12	8.9	9.5	8.5	9.6	9.5	7.8	7.7	8.2
7	8.9	9.6	7.6	8.2	9.0	8.7	8.2	7.1
2	7.4	6.2	5.0	6.0	6.2	7.6	8.0	4.6

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	228.	195.	258.	258.	258.	195.	195.	195.
27	319.	346.	289.	289.	289.	255.	255.	178.
22	381.	381.	381.	351.	351.	318.	241.	241.
17	345.	413.	413.	413.	305.	305.	305.	213.
12	326.	408.	443.	408.	369.	369.	326.	408.
7	345.	390.	468.	390.	345.	295.	241.	295.
2	361.	408.	451.	451.	451.	408.	361.	309.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	100.	97.	119.	122.	130.	113.	116.	115.
27	115.	128.	119.	126.	133.	121.	125.	100.
22	125.	131.	136.	132.	137.	119.	94.	102.
17	103.	123.	125.	129.	109.	105.	102.	72.
12	83.	102.	110.	108.	99.	110.	96.	120.
7	80.	93.	98.	88.	86.	84.	77.	81.
2	68.	89.	97.	100.	107.	109.	104.	79.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	73.	92.	65.	91.	135.	194.	176.	204.
27	96.	117.	175.	229.	251.	253.	290.	334.
22	160.	230.	369.	420.	378.	353.	377.	268.
17	291.	400.	387.	472.	507.	287.	210.	197.
12	322.	344.	281.	382.	400.	303.	228.	292.
7	294.	332.	197.	232.	386.	419.	304.	194.
2	213.	144.	110.	132.	159.	279.	334.	101.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-16.	3.	1.	1.	9.	27.	29.	24.
27	-14.	-8.	3.	15.	21.	22.	26.	40.
22	1.	6.	7.	10.	27.	11.	13.	27.
17	-4.	1.	-4.	8.	28.	13.	4.	-7.
12	-11.	-4.	-11.	-8.	-8.	10.	13.	23.
7	4.	16.	-25.	-13.	-4.	18.	36.	12.
2	-24.	-3.	-4.	5.	13.	37.	48.	10.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	71.	4.	74.	45.	-16.	-140.	-126.	-149.
27	122.	110.	-10.	-83.	-118.	-142.	-186.	-296.
22	96.	15.	-131.	-211.	-191.	-166.	-244.	-158.
17	-46.	-111.	-95.	-198.	-339.	-101.	-11.	-50.
12	-68.	-35.	63.	-75.	-123.	-54.	-11.	-27.
7	-33.	-51.	197.	85.	-124.	-226.	-176.	9.
2	104.	179.	249.	214.	173.	-18.	-126.	121.

LONGITUDE WEST

T(W) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	16.0	16.3	16.8	16.9	16.8	16.7	16.1	15.0
27	20.7	20.6	20.4	20.3	19.8	19.0	18.2	17.2
22	23.1	22.3	22.3	22.0	21.5	21.0	19.9	19.4
17	23.6	23.5	23.4	22.8	22.5	22.3	22.0	21.7
12	24.8	24.8	24.5	24.6	24.3	23.7	23.4	23.2
7	26.4	26.0	25.4	25.4	25.3	25.3	25.3	25.0
2	26.8	26.4	25.9	26.0	25.8	26.0	26.5	26.5

T(A) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	16.2	16.4	16.8	17.0	16.7	15.7	15.4	14.4
27	20.0	20.1	20.3	19.5	19.3	18.4	17.7	16.8
22	23.1	22.7	22.3	21.7	21.3	20.5	19.7	19.5
17	24.0	24.3	23.7	23.0	22.7	22.1	21.5	20.9
12	25.2	25.0	24.7	25.1	25.0	24.7	24.2	23.0
7	27.0	26.3	26.2	25.8	26.0	26.0	25.7	25.2
2	27.0	26.8	26.6	26.0	25.8	25.7	25.5	25.0

E(A) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	14.1	14.8	15.9	15.7	15.0	14.0	13.3	12.8
27	18.7	19.0	19.5	17.8	17.0	15.4	14.3	13.7
22	22.1	21.3	21.3	20.0	19.1	17.9	16.5	15.0
17	23.8	23.3	23.3	23.1	22.0	21.9	19.8	19.0
12	25.8	25.8	26.4	25.4	25.3	25.5	24.0	22.5
7	28.2	28.0	29.2	28.5	27.7	28.1	26.0	26.5
2	29.8	30.0	29.5	29.6	28.7	28.3	27.7	27.5

C — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8
27	0.7	0.6	0.6	0.7	0.7	0.8	0.7	0.7
22	0.6	0.5	0.5	0.7	0.7	0.7	0.6	0.7
17	0.6	0.5	0.5	0.6	0.6	0.6	0.7	0.8
12	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.6
7	0.6	0.5	0.7	0.9	0.8	0.9	0.7	0.6
2	0.5	0.5	0.6	0.7	0.7	0.6	0.6	0.6

W — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	7.1	7.3	7.5	7.7	7.5	7.1	7.3	7.5
27	8.0	7.7	8.3	8.4	8.4	8.2	7.9	6.9
22	7.3	7.2	8.2	8.5	9.3	9.3	9.0	6.5
17	6.7	6.8	6.6	8.0	9.4	8.9	8.9	8.3
12	6.2	7.2	7.5	9.0	9.1	7.8	7.6	8.2
7	5.9	8.4	7.8	9.2	9.3	9.5	8.6	7.7
2	6.3	6.0	5.0	6.0	6.7	7.1	9.0	9.5

LONGITUDE WEST

Q(S) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	328.	290.	290.	290.	290.	290.	290.	248.
27	311.	352.	352.	311.	311.	266.	311.	311.
22	373.	412.	412.	330.	330.	330.	373.	330.
17	390.	431.	431.	390.	390.	390.	345.	295.
12	485.	447.	405.	405.	358.	358.	358.	405.
7	414.	458.	366.	256.	313.	256.	366.	414.
2	465.	465.	421.	372.	372.	421.	421.	421.

Q(B) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	125.	112.	109.	109.	114.	127.	126.	110.
27	113.	121.	114.	117.	116.	107.	123.	123.
22	108.	114.	119.	106.	107.	114.	127.	116.
17	97.	103.	109.	101.	105.	110.	109.	102.
12	107.	102.	92.	92.	80.	75.	82.	109.
7	83.	95.	68.	53.	63.	50.	82.	92.
2	90.	87.	77.	77.	79.	93.	105.	111.

Q(E) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	122.	120.	110.	134.	145.	152.	165.	151.
27	252.	202.	218.	315.	320.	323.	285.	169.
22	199.	174.	268.	348.	437.	469.	426.	191.
17	136.	150.	136.	198.	348.	297.	405.	353.
12	121.	166.	144.	334.	311.	142.	170.	282.
7	126.	281.	115.	234.	283.	264.	341.	192.
2	121.	88.	59.	79.	111.	153.	423.	484.

Q(C) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	-6.	-3.	1.	-4.	3.	29.	21.	18.
27	23.	16.	4.	27.	17.	20.	16.	11.
22	1.	-12.	1.	11.	8.	19.	8.	-3.
17	-11.	-22.	-8.	-7.	-8.	8.	18.	27.
12	-10.	-6.	-6.	-18.	-26.	-31.	-25.	7.
7	-15.	-10.	-25.	-15.	-26.	-27.	-14.	-7.
2	-5.	-10.	-14.	1.	1.	9.	36.	57.

Q(N) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	87.	63.	70.	51.	28.	-19.	-22.	-32.
27	-78.	14.	15.	-149.	-143.	-184.	-114.	8.
22	66.	137.	26.	-136.	-223.	-273.	-188.	27.
17	168.	200.	195.	98.	-55.	-25.	-188.	-186.
12	268.	185.	176.	-3.	-8.	172.	131.	7.
7	220.	93.	210.	-16.	-7.	-32.	-43.	138.
2	260.	301.	299.	216.	182.	166.	-143.	-232.

LONGITUDE WEST

LATITUDE NORTH T(W)	167	162	157	152	147	142	137	132
32	16.1	16.8	16.7	16.7	16.5	16.0	15.8	15.0
27	19.8	20.4	20.3	20.2	19.9	19.1	18.5	17.1
22	23.0	22.6	22.5	22.1	21.5	20.8	19.8	19.1
17	24.4	24.3	23.7	22.9	22.7	22.3	21.8	20.8
12	25.7	25.3	24.7	24.6	24.6	24.1	23.9	24.2
7	26.6	26.6	26.2	25.8	25.9	26.2	26.3	26.8
2	27.4	27.3	26.7	27.0	26.6	26.9	29.1	29.2

LATITUDE NORTH T(A)	167	162	157	152	147	142	137	132
32	16.1	17.0	17.3	17.0	16.7	16.0	15.3	14.3
27	19.9	20.3	20.3	20.0	19.1	18.2	17.6	16.4
22	22.6	22.5	22.7	21.9	21.3	20.4	19.6	18.5
17	24.3	24.3	24.1	23.0	22.7	22.2	21.5	21.0
12	25.8	25.4	25.2	25.3	25.0	24.4	24.3	24.0
7	26.7	26.3	26.3	26.5	26.6	26.4	26.0	26.2
2	27.3	27.5	27.7	27.1	26.0	26.0	27.0	27.0

LATITUDE NORTH E(A)	167	162	157	152	147	142	137	132
32	15.6	16.1	16.8	15.7	14.9	13.7	12.8	12.3
27	18.2	19.0	19.3	17.9	16.6	15.4	14.6	14.1
22	22.1	21.7	21.0	20.1	19.1	18.0	16.2	15.9
17	25.0	24.6	23.5	21.9	22.0	21.8	21.4	19.0
12	27.4	27.4	26.8	26.7	26.5	25.3	25.2	24.6
7	29.9	30.1	29.4	27.8	28.0	30.5	29.8	29.8
2	31.1	30.1	29.3	29.0	27.5	27.9	28.5	28.6

LATITUDE NORTH C	167	162	157	152	147	142	137	132
32	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.8
27	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8
22	0.7	0.7	0.6	0.6	0.6	0.7	0.8	0.8
17	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.8
12	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.7
7	0.7	0.8	0.8	0.7	0.6	0.6	0.9	0.8
2	0.6	0.6	0.6	0.6	0.5	0.6	0.8	0.9

LATITUDE NORTH W	167	162	157	152	147	142	137	132
32	8.3	7.4	7.0	7.1	6.6	6.6	6.8	7.2
27	7.6	8.0	6.8	8.2	7.5	7.5	7.7	7.5
22	7.7	8.2	8.1	8.3	8.5	8.2	8.2	7.7
17	7.3	8.0	8.5	8.9	8.9	7.7	7.6	7.6
12	6.8	8.3	9.2	10.4	8.7	7.9	7.5	7.3
7	6.6	8.1	6.0	8.5	8.8	7.9	7.5	7.1
2	5.7	7.2	4.0	6.1	8.0	6.6	5.9	5.3

LONGITUDE WEST

LATITUDE NORTH Q(S)	167	162	157	152	147	142	137	132
32	300.	350.	350.	300.	300.	300.	245.	300.
27	409.	409.	409.	361.	361.	309.	309.	309.
22	369.	369.	418.	418.	418.	369.	316.	316.
17	373.	373.	373.	422.	422.	422.	373.	319.
12	375.	424.	375.	375.	375.	424.	424.	375.
7	372.	318.	318.	372.	421.	421.	260.	318.
2	414.	414.	414.	414.	458.	414.	314.	256.

LATITUDE NORTH Q(B)	167	162	157	152	147	142	137	132
32	96.	106.	99.	93.	96.	102.	93.	113.
27	116.	116.	114.	110.	121.	110.	112.	110.
22	102.	99.	108.	116.	119.	112.	101.	105.
17	90.	90.	88.	107.	107.	109.	101.	89.
12	82.	91.	78.	76.	80.	94.	93.	93.
7	75.	70.	67.	74.	82.	80.	60.	75.
2	83.	83.	75.	87.	108.	103.	99.	89.

LATITUDE NORTH Q(E)	167	162	157	152	147	142	137	132
32	128.	98.	58.	97.	97.	115.	142.	151.
27	179.	217.	120.	279.	238.	242.	264.	193.
22	229.	272.	288.	327.	355.	320.	338.	243.
17	176.	250.	307.	362.	334.	194.	169.	205.
12	147.	230.	262.	312.	239.	190.	149.	177.
7	118.	203.	92.	280.	306.	131.	144.	156.
2	101.	186.	70.	143.	320.	190.	251.	218.

LATITUDE NORTH Q(C)	167	162	157	152	147	142	137	132
32	1.	-6.	-17.	-9.	-6.	1.	14.	20.
27	-4.	4.	1.	7.	24.	27.	28.	21.
22	13.	4.	-7.	7.	7.	13.	7.	19.
17	3.	1.	-14.	-4.	1.	4.	10.	-7.
12	-3.	-4.	-19.	-29.	-14.	-10.	-12.	6.
7	-3.	10.	-3.	-24.	-25.	-7.	9.	17.
2	3.	-6.	-16.	-3.	20.	24.	50.	47.

LATITUDE NORTH Q(N)	167	162	157	152	147	142	137	132
32	76.	152.	210.	120.	113.	84.	-4.	17.
27	118.	72.	175.	-35.	-23.	-71.	-96.	-16.
22	26.	-6.	29.	-33.	-64.	-77.	-131.	-52.
17	104.	33.	-9.	-43.	-20.	117.	94.	33.
12	149.	107.	54.	17.	70.	150.	194.	99.
7	182.	35.	163.	43.	58.	217.	48.	71.
2	227.	152.	286.	187.	11.	98.	-87.	-97.

LONGITUDE WEST

T(W) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	18.8	18.9	18.5	17.8	17.0	16.0	16.0	15.0
27	21.8	21.2	21.1	20.5	19.8	19.0	18.5	17.6
22	23.3	23.2	22.8	22.2	21.4	20.7	20.3	19.8
17	24.5	24.3	23.9	23.6	23.3	22.7	22.2	21.8
12	26.1	25.7	25.3	25.1	25.2	25.0	25.0	24.3
7	26.8	27.3	26.4	26.2	26.2	26.0	26.2	26.3
2	27.4	26.8	26.6	26.4	26.2	26.2	26.8	27.6

T(A) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	19.3	19.5	18.7	17.7	16.7	15.7	15.9	15.0
27	22.4	21.8	21.3	20.0	19.3	18.5	17.9	17.2
22	24.2	23.5	23.1	22.2	21.7	21.0	20.3	20.0
17	24.9	24.7	24.3	23.9	23.7	23.1	23.0	22.6
12	26.1	25.8	25.6	25.6	25.3	24.4	25.1	24.7
7	26.7	26.4	26.5	26.4	26.1	25.1	25.6	26.2
2	27.5	27.1	27.3	26.7	26.3	26.0	26.0	27.0

E(A) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	19.0	17.9	16.4	14.7	13.7	13.1	13.4	12.9
27	21.8	20.2	19.2	17.8	16.0	16.0	15.3	13.9
22	24.0	22.1	21.0	20.4	20.6	19.8	18.6	16.8
17	26.3	25.1	23.9	24.0	24.1	22.4	23.1	22.5
12	29.2	28.3	27.4	27.0	25.8	25.3	26.7	28.1
7	30.1	30.5	31.1	28.8	28.2	27.4	27.5	27.2
2	29.4	31.1	27.5	28.5	28.8	28.7	28.0	25.9

C LATITUDE NORTH	167	162	157	152	147	142	137	132
32	0.7	0.6	0.7	0.7	0.8	0.8	0.7	0.7
27	0.7	0.6	0.5	0.6	0.7	0.8	0.8	0.8
22	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.7
17	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.7
12	0.8	0.6	0.6	0.6	0.6	0.7	0.8	0.5
7	0.7	0.8	0.8	0.7	0.9	0.8	0.7	0.8
2	0.5	0.6	0.7	0.8	0.8	0.6	0.5	0.5

W LATITUDE NORTH	167	162	157	152	147	142	137	132
32	8.2	7.5	7.1	7.1	6.9	6.6	7.1	7.5
27	8.1	8.0	7.7	7.7	7.2	7.0	6.8	6.8
22	8.2	8.2	8.1	8.3	8.3	8.1	7.3	7.1
17	6.7	7.2	7.3	9.3	8.4	8.4	8.4	9.1
12	7.2	7.0	9.0	9.2	7.7	7.3	8.4	10.9
7	5.4	6.4	5.8	6.8	5.9	5.7	5.7	7.0
2	6.3	4.9	5.1	5.8	5.5	5.3	5.3	5.8

LONGITUDE WEST

Q(S) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	388.	439.	388.	388.	332.	332.	388.	388.
27	389.	440.	486.	440.	389.	333.	333.	333.
22	387.	387.	438.	438.	387.	331.	387.	387.
17	381.	381.	431.	381.	431.	431.	381.	381.
12	319.	422.	422.	422.	422.	373.	319.	466.
7	361.	309.	309.	361.	253.	309.	361.	309.
2	434.	393.	348.	298.	298.	393.	434.	434.

Q(B) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	96.	110.	108.	116.	106.	107.	119.	118.
27	89.	105.	123.	126.	119.	104.	107.	108.
22	80.	94.	108.	113.	96.	85.	105.	108.
17	80.	84.	97.	88.	96.	101.	83.	85.
12	68.	88.	88.	87.	96.	96.	73.	91.
7	77.	77.	62.	77.	61.	84.	91.	75.
2	94.	78.	75.	67.	68.	91.	109.	116.

Q(E) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	120.	135.	147.	173.	162.	131.	145.	147.
27	192.	216.	224.	246.	226.	175.	165.	172.
22	212.	303.	313.	319.	240.	208.	169.	192.
17	110.	160.	183.	330.	224.	264.	178.	215.
12	134.	129.	285.	300.	237.	204.	247.	154.
7	89.	133.	59.	134.	117.	120.	127.	201.
2	162.	61.	124.	117.	94.	91.	128.	229.

Q(C) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	-17.	-18.	-6.	3.	9.	8.	3.	1.
27	-20.	-20.	-7.	16.	15.	14.	17.	11.
22	-30.	-10.	-10.	1.	-10.	-10.	1.	-6.
17	-11.	-12.	-12.	-12.	-14.	-14.	-27.	-29.
12	1.	-3.	-11.	-19.	-4.	18.	-4.	-18.
7	3.	23.	-3.	-6.	3.	21.	14.	3.
2	-3.	-6.	-15.	-7.	-3.	5.	17.	14.

Q(N) LATITUDE NORTH	167	162	157	152	147	142	137	132
32	190.	213.	140.	96.	56.	86.	122.	123.
27	128.	139.	146.	53.	29.	40.	45.	42.
22	124.	1.	28.	6.	62.	48.	113.	93.
17	202.	150.	163.	-25.	126.	81.	148.	111.
12	116.	209.	60.	54.	93.	55.	4.	240.
7	192.	77.	191.	156.	72.	85.	130.	31.
2	182.	261.	164.	122.	139.	207.	180.	76.

	LONGITUDE WEST							
T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.0	20.3	20.2	19.6	18.4	17.8	17.6	17.1
27	22.8	22.7	22.6	22.3	21.0	20.4	19.8	18.8
22	25.3	25.0	24.4	23.7	22.8	22.2	21.8	21.1
17	24.6	25.3	24.8	24.3	23.7	23.5	23.2	22.7
12	26.3	26.1	25.5	25.0	25.4	25.3	25.3	24.9
7	27.4	27.2	26.8	26.6	26.7	26.3	26.3	26.6
2	26.8	26.8	26.6	27.3	26.7	25.8	25.8	24.8

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	21.1	21.6	21.5	20.8	19.5	18.7	18.2	17.3
27	23.4	23.4	23.3	23.1	21.6	20.3	19.7	19.3
22	25.5	25.0	24.3	23.7	23.1	22.3	20.8	20.8
17	25.8	25.6	25.3	24.4	23.8	23.7	23.3	22.7
12	27.0	26.3	26.0	25.7	25.3	25.3	25.3	25.2
7	27.4	27.0	26.3	26.3	26.6	26.5	26.5	26.5
2	27.0	27.3	27.1	26.6	26.0	25.2	25.5	25.7

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	21.8	22.0	22.2	20.4	16.9	17.6	16.9	16.0
27	24.5	24.0	24.0	22.2	20.1	18.5	18.0	18.0
22	26.3	25.1	23.9	22.8	21.6	20.9	20.3	20.5
17	27.8	26.6	25.6	25.1	23.4	22.4	22.2	22.0
12	28.6	27.7	26.8	25.9	27.1	25.7	26.9	25.8
7	27.9	29.2	28.5	28.3	27.7	27.7	28.0	27.3
2	27.4	27.8	27.4	28.5	28.2	26.7	26.3	25.2

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.9
27	0.6	0.5	0.6	0.5	0.7	0.8	0.8	0.7
22	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8
17	0.6	0.5	0.5	0.5	0.4	0.5	0.7	0.7
12	0.5	0.6	0.6	0.5	0.6	0.7	0.7	0.7
7	0.6	0.8	0.9	0.9	0.8	0.8	0.6	0.8
2	0.3	0.6	0.5	0.5	0.7	0.5	0.5	0.4

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	6.5	6.3	6.0	5.5	6.2	6.5	6.5	6.3
27	6.6	6.6	6.6	6.5	6.9	6.6	6.2	5.6
22	6.7	7.2	7.3	7.3	7.3	6.5	7.3	6.3
17	6.8	7.7	8.2	6.6	7.2	6.8	7.4	6.8
12	6.8	9.2	8.3	8.3	8.2	7.2	7.2	6.8
7	6.5	6.8	6.9	6.7	6.0	4.9	4.0	5.2
2	5.6	5.3	4.7	7.1	6.0	6.7	7.2	6.7

	LONGITUDE WEST							
Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	457.	457.	404.	404.	404.	346.	346.	283.
27	451.	499.	451.	499.	399.	341.	341.	399.
22	489.	489.	489.	443.	443.	443.	391.	335.
17	430.	475.	475.	475.	516.	475.	380.	380.
12	458.	415.	415.	458.	415.	366.	366.	366.
7	396.	300.	245.	245.	300.	300.	396.	300.
2	482.	376.	416.	416.	333.	416.	416.	451.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	92.	89.	78.	84.	96.	81.	87.	78.
27	91.	100.	92.	106.	94.	93.	94.	99.
22	101.	108.	113.	106.	105.	110.	113.	90.
17	75.	99.	100.	106.	118.	114.	96.	97.
12	88.	89.	88.	96.	94.	88.	84.	84.
7	93.	72.	65.	63.	74.	70.	89.	75.
2	110.	86.	95.	107.	90.	110.	108.	103.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	30.	35.	24.	41.	95.	64.	76.	79.
27	75.	85.	80.	113.	131.	139.	115.	69.
22	152.	203.	215.	210.	199.	144.	188.	103.
17	75.	211.	267.	130.	182.	177.	210.	149.
12	146.	386.	284.	282.	247.	201.	161.	150.
7	212.	182.	185.	167.	156.	104.	77.	131.
2	151.	132.	113.	232.	144.	168.	213.	157.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-29.	-33.	-31.	-27.	-28.	-24.	-16.	-5.
27	-16.	-19.	-19.	-21.	-17.	3.	3.	-12.
22	-6.	1.	3.	1.	-9.	-3.	29.	8.
17	-33.	-10.	-17.	-3.	-3.	-6.	-3.	1.
12	-19.	-8.	-17.	-24.	4.	1.	1.	-9.
7	1.	6.	14.	8.	3.	-4.	-4.	3.
2	-5.	-11.	-10.	20.	17.	16.	9.	-24.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	365.	367.	334.	307.	241.	224.	199.	132.
27	301.	333.	299.	301.	191.	107.	130.	242.
22	242.	179.	159.	127.	148.	193.	61.	135.
17	314.	176.	126.	243.	220.	191.	79.	134.
12	244.	-53.	60.	104.	70.	77.	122.	142.
7	92.	41.	-19.	7.	68.	131.	235.	92.
2	226.	170.	218.	58.	82.	122.	86.	216.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	23.9	23.6	23.2	22.3	21.1	20.3	19.4	18.3
27	24.7	24.3	24.1	22.8	22.0	21.3	20.5	19.7
22	25.3	25.2	24.7	24.1	23.4	22.6	21.7	21.1
17	25.6	26.0	25.3	25.0	24.7	24.6	24.3	23.9
12	25.9	25.9	25.8	25.8	26.1	26.3	26.4	26.6
7	28.7	27.5	26.7	27.2	26.3	26.3	27.1	27.4
2	26.3	26.5	26.3	26.3	24.6	24.2	25.2	25.6

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.6	24.0	23.2	22.3	21.0	20.3	19.6	18.7
27	25.2	24.6	23.9	23.0	22.1	21.3	20.4	19.5
22	25.6	25.4	24.7	23.9	23.3	22.4	21.6	20.8
17	26.3	26.1	25.4	24.8	24.7	24.5	24.3	23.9
12	26.5	26.3	26.2	26.1	25.7	25.7	26.0	25.9
7	26.8	26.7	26.5	26.3	26.1	25.3	26.5	26.5
2	26.8	26.6	26.4	26.2	25.6	25.2	25.0	25.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.4	23.7	22.7	21.8	19.8	18.9	18.0	17.3
27	24.8	24.1	23.0	21.7	20.8	19.6	18.9	17.9
22	25.6	24.7	23.8	23.4	22.7	21.6	21.1	20.5
17	26.9	26.4	25.8	25.8	24.2	23.5	23.4	23.4
12	28.1	29.1	27.9	26.8	25.9	26.2	26.2	26.5
7	28.3	28.7	28.1	27.5	27.4	27.5	27.0	28.1
2	27.5	27.1	26.4	26.5	26.4	25.8	24.8	23.0

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.8
27	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9
22	0.5	0.5	0.5	0.6	0.7	0.7	0.9	0.9
17	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.9
12	0.5	0.7	0.7	0.5	0.6	0.6	0.6	0.7
7	0.5	0.7	0.9	0.7	0.6	0.8	0.6	0.6
2	0.5	0.5	0.5	0.4	0.3	0.3	0.4	0.4

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	5.8	6.5	6.6	6.0	5.7	5.5	5.2	5.7
27	6.7	7.2	7.1	7.6	6.9	6.7	6.9	7.0
22	7.6	8.3	8.5	7.9	7.3	7.8	8.7	9.4
17	6.6	7.5	8.0	7.1	7.0	5.7	6.3	7.3
12	5.8	9.2	8.3	6.7	5.7	5.2	4.0	5.1
7	6.8	7.2	4.8	5.4	5.3	5.4	4.3	3.7
2	7.5	6.3	4.6	6.3	4.5	4.5	4.7	4.3

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	499.	499.	451.	451.	399.	341.	341.	341.
27	494.	494.	494.	447.	395.	395.	338.	277.
22	488.	488.	488.	441.	390.	390.	273.	273.
17	475.	475.	475.	475.	475.	430.	380.	266.
12	460.	368.	368.	460.	416.	416.	416.	368.
7	441.	353.	247.	353.	399.	302.	399.	399.
2	420.	420.	420.	456.	487.	487.	456.	456.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	100.	106.	106.	108.	103.	91.	90.	89.
27	102.	107.	117.	106.	99.	103.	92.	80.
22	103.	107.	112.	107.	97.	100.	73.	76.
17	93.	103.	104.	108.	111.	106.	94.	68.
12	90.	73.	77.	99.	103.	105.	102.	96.
7	125.	91.	62.	96.	96.	85.	103.	103.
2	94.	101.	103.	112.	102.	104.	119.	132.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	104.	131.	144.	108.	103.	92.	78.	72.
27	163.	194.	211.	222.	157.	150.	145.	146.
22	242.	368.	394.	278.	195.	233.	272.	297.
17	147.	252.	280.	172.	199.	148.	162.	201.
12	104.	259.	255.	165.	157.	140.	105.	142.
7	304.	248.	108.	158.	120.	121.	124.	98.
2	233.	174.	117.	179.	63.	61.	112.	139.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-17.	-11.	1.	1.	3.	1.	-5.	-10.
27	-14.	-9.	6.	-7.	-3.	1.	3.	6.
22	-10.	-7.	1.	7.	3.	7.	4.	12.
17	-19.	-3.	-4.	6.	1.	3.	1.	1.
12	-14.	-15.	-14.	-8.	10.	13.	7.	15.
7	52.	23.	4.	20.	5.	22.	11.	14.
2	-15.	-3.	-2.	3.	-18.	-18.	4.	11.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	311.	273.	202.	236.	191.	159.	178.	191.
27	243.	203.	161.	126.	144.	142.	98.	45.
22	153.	20.	-20.	50.	95.	51.	-77.	-113.
17	255.	124.	95.	190.	165.	174.	124.	-4.
12	280.	51.	50.	205.	147.	159.	202.	116.
7	-40.	-11.	73.	80.	179.	74.	162.	184.
2	109.	149.	202.	162.	341.	341.	222.	175.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.8	24.6	24.2	23.5	22.7	21.8	21.2	20.3
27	25.2	24.7	24.5	24.3	23.5	22.8	21.8	21.2
22	25.5	25.4	25.3	24.7	24.0	23.4	22.5	21.7
17	26.2	25.8	25.4	24.8	24.7	24.4	24.3	24.2
12	26.5	26.3	25.9	26.1	26.3	26.3	26.3	26.3
7	26.7	26.8	27.0	26.4	26.3	26.2	26.2	26.0
2	26.8	27.3	25.9	25.9	25.6	25.3	24.9	24.7

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.8	24.8	23.7	22.9	22.3	21.8	21.2	20.5
27	25.4	24.8	24.4	24.0	23.4	22.9	22.0	21.2
22	26.0	25.5	25.0	24.6	24.2	23.7	23.2	21.8
17	26.3	26.1	25.5	25.3	25.1	25.2	24.8	24.5
12	26.6	26.2	26.2	26.3	26.3	26.2	26.1	25.9
7	27.0	26.8	26.7	26.5	26.3	26.1	26.0	25.4
2	26.8	26.7	26.5	26.3	26.1	25.9	25.0	24.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	24.5	23.9	23.1	22.1	21.1	20.5	19.8	18.6
27	25.4	24.9	24.2	23.0	21.9	20.9	19.8	19.2
22	26.1	25.2	24.3	23.4	22.6	21.6	20.8	20.5
17	27.3	26.7	26.2	25.3	24.7	24.1	24.0	23.9
12	27.7	28.2	28.3	27.7	27.2	27.9	29.0	29.1
7	27.7	29.0	30.1	28.3	27.4	27.3	27.7	27.8
2	27.3	27.5	26.2	25.8	25.0	25.5	27.1	26.9

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.5	0.4	0.5	0.6	0.6	0.7	0.7	0.8
27	0.5	0.6	0.5	0.5	0.5	0.6	0.7	0.7
22	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.8
17	0.6	0.6	0.5	0.4	0.5	0.6	0.8	0.8
12	0.5	0.6	0.7	0.7	0.6	0.6	0.7	0.8
7	0.6	0.7	0.8	0.7	0.6	0.6	0.8	0.9
2	0.5	0.5	0.5	0.6	0.3	0.6	0.5	0.4

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	5.9	5.4	5.5	6.2	5.8	6.0	5.2	4.7
27	6.9	6.8	7.1	6.4	5.7	4.8	4.6	4.6
22	7.5	7.5	7.2	7.3	6.7	6.9	5.8	5.7
17	7.1	6.9	6.8	7.3	7.3	6.5	7.0	6.8
12	6.6	5.5	6.4	6.5	7.4	6.2	5.2	5.5
7	6.2	4.6	5.7	6.7	7.0	5.3	5.8	6.0
2	6.3	5.9	6.0	8.3	9.0	9.2	8.0	7.5

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	463.	502.	463.	419.	419.	370.	370.	317.
27	470.	425.	470.	470.	470.	425.	376.	376.
22	474.	474.	474.	474.	474.	429.	324.	324.
17	427.	427.	472.	512.	472.	427.	323.	323.
12	466.	421.	372.	372.	421.	421.	372.	319.
7	412.	364.	312.	364.	412.	412.	312.	255.
2	441.	441.	441.	399.	512.	399.	441.	479.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	110.	116.	120.	115.	115.	101.	102.	89.
27	104.	99.	112.	119.	119.	110.	101.	104.
22	99.	107.	115.	115.	114.	106.	79.	87.
17	92.	91.	103.	107.	104.	93.	75.	77.
12	99.	92.	77.	80.	94.	93.	81.	74.
7	89.	79.	70.	80.	93.	95.	75.	67.
2	102.	109.	97.	93.	115.	91.	99.	115.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	141.	129.	134.	155.	132.	120.	93.	80.
27	184.	166.	195.	177.	141.	109.	95.	90.
22	227.	254.	249.	252.	190.	202.	132.	107.
17	198.	179.	166.	191.	206.	158.	183.	169.
12	173.	110.	117.	147.	234.	139.	87.	92.
7	164.	91.	105.	156.	194.	118.	126.	121.
2	184.	184.	154.	380.	487.	433.	182.	139.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	1.	-5.	11.	15.	10.	1.	1.	-4.
27	-6.	-3.	3.	8.	3.	-2.	-4.	1.
22	-15.	-3.	9.	3.	-6.	-9.	-17.	-3.
17	-3.	-9.	-3.	-15.	-12.	-21.	-14.	-9.
12	-3.	3.	-8.	-6.	1.	3.	5.	9.
7	-8.	1.	7.	-3.	1.	3.	5.	15.
2	1.	15.	-15.	-14.	-18.	-22.	-4.	21.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	212.	262.	198.	134.	162.	150.	175.	152.
27	188.	165.	160.	166.	208.	208.	184.	181.
22	164.	117.	101.	104.	176.	129.	130.	134.
17	140.	166.	207.	229.	175.	198.	80.	86.
12	197.	218.	187.	152.	93.	187.	200.	145.
7	167.	193.	129.	132.	124.	197.	107.	52.
2	155.	134.	205.	-61.	-72.	-103.	165.	204.

LONGITUDE WEST

	T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	24.9	24.5	24.2	23.4	22.4	21.6	20.6	19.5
	27	25.3	24.8	24.4	24.0	23.1	22.1	21.3	20.7
	22	26.0	25.8	25.3	24.6	23.8	23.0	21.9	21.8
	17	26.6	26.2	25.7	25.2	24.8	24.6	24.3	24.2
	12	26.7	26.5	26.3	26.1	26.1	26.2	26.3	26.3
	7	27.3	26.8	26.4	26.3	26.0	25.9	26.3	26.2
	2	26.3	25.9	25.8	25.7	25.7	25.7	25.7	25.7

	T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	24.3	24.2	24.0	23.3	22.3	21.3	20.3	19.2
	27	24.8	24.7	24.4	24.1	23.1	22.3	21.4	20.5
	22	26.0	25.4	25.1	24.6	24.1	23.1	22.6	22.0
	17	26.3	26.2	26.0	25.3	24.8	24.5	24.2	24.3
	12	26.7	26.7	26.7	26.1	26.2	25.7	25.4	25.3
	7	27.0	26.8	26.6	26.4	26.2	25.9	25.7	25.3
	2	26.1	26.2	26.6	26.1	25.3	25.0	25.0	25.2

	E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	24.5	24.0	22.9	21.3	19.9	18.9	17.7	16.6
	27	24.0	24.9	24.2	22.1	21.0	19.6	18.3	17.2
	22	25.8	25.6	24.6	23.5	23.1	21.9	20.1	18.8
	17	27.2	26.9	25.9	25.6	25.9	24.9	23.6	22.6
	12	29.1	28.9	28.2	27.9	28.6	27.1	26.9	27.1
	7	29.2	28.8	28.0	28.0	27.8	27.4	27.1	27.2
	2	27.0	26.1	25.5	26.0	26.1	26.0	25.7	26.1

	C	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	0.5	0.5	0.4	0.4	0.6	0.7	0.7	0.8
	27	0.5	0.6	0.6	0.5	0.6	0.7	0.7	0.7
	22	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.7
	17	0.6	0.6	0.5	0.6	0.7	0.7	0.5	0.7
	12	0.9	0.6	0.5	0.5	0.7	0.7	0.5	0.7
	7	0.7	0.7	0.9	0.7	0.6	0.6	0.6	0.8
	2	0.6	0.5	0.5	0.3	0.5	0.7	0.7	0.8

	W	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	5.5	5.3	4.8	5.2	5.6	5.8	6.4	6.9
	27	6.0	6.1	6.0	6.8	7.3	6.8	6.5	6.6
	22	7.1	7.2	8.0	7.8	8.0	7.1	6.7	5.8
	17	5.6	6.8	7.4	7.9	8.8	8.3	5.6	6.7
	12	4.6	6.0	6.2	6.2	8.2	8.0	3.5	5.4
	7	4.7	6.3	6.0	5.4	6.3	5.5	6.0	5.7
	2	4.5	4.7	5.5	7.0	6.1	7.0	8.5	8.5

LONGITUDE WEST

	Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	397.	397.	431.	431.	359.	318.	318.	272.
	27	418.	378.	378.	418.	378.	334.	334.	334.
	22	473.	436.	394.	394.	394.	394.	349.	349.
	17	405.	405.	448.	405.	358.	358.	448.	358.
	12	255.	413.	456.	456.	365.	365.	456.	365.
	7	367.	367.	257.	367.	416.	416.	416.	314.
	2	414.	458.	458.	531.	458.	366.	366.	314.

	Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	117.	115.	125.	129.	116.	109.	112.	100.
	27	119.	101.	102.	117.	112.	102.	106.	113.
	22	113.	112.	104.	105.	101.	107.	94.	104.
	17	98.	95.	102.	97.	87.	91.	114.	96.
	12	58.	86.	93.	99.	79.	91.	114.	97.
	7	83.	80.	57.	81.	89.	93.	101.	85.
	2	97.	102.	98.	112.	110.	96.	97.	82.

	Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	131.	120.	116.	132.	141.	142.	159.	172.
	27	178.	139.	135.	211.	238.	191.	176.	187.
	22	235.	237.	338.	300.	280.	185.	162.	151.
	17	147.	190.	239.	268.	308.	296.	131.	200.
	12	86.	118.	132.	130.	239.	301.	80.	129.
	7	107.	146.	134.	111.	131.	110.	151.	133.
	2	105.	112.	146.	202.	151.	202.	392.	369.

	Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	14.	7.	4.	3.	3.	7.	8.	9.
	27	12.	3.	1.	-3.	1.	-6.	-3.	6.
	22	1.	12.	7.	1.	-10.	-3.	-19.	-5.
	17	7.	1.	-9.	-4.	1.	4.	3.	-3.
	12	1.	-5.	-10.	1.	-4.	16.	13.	22.
	7	6.	1.	-5.	-3.	-5.	1.	15.	21.
	2	4.	-6.	-18.	-12.	10.	20.	24.	17.

	Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	136.	156.	186.	168.	101.	59.	39.	-9.
	27	109.	135.	141.	93.	29.	47.	55.	29.
	22	125.	75.	-55.	-12.	24.	106.	112.	99.
	17	154.	120.	117.	44.	-38.	-33.	201.	66.
	12	112.	215.	242.	228.	52.	-43.	250.	117.
	7	171.	141.	71.	178.	202.	212.	149.	76.
	2	209.	251.	233.	229.	188.	49.	-147.	-155.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	22.7	22.3	21.9	21.5	21.0	20.6	19.8	19.0
27	24.3	24.2	23.7	23.3	22.8	21.9	20.9	20.3
22	25.3	25.0	24.7	24.3	23.8	23.3	22.6	21.8
17	26.2	26.0	25.6	25.4	25.0	24.6	24.7	24.4
12	26.6	26.4	26.3	26.2	25.9	26.0	26.3	26.1
7	27.4	26.6	26.0	26.2	26.2	26.2	26.3	26.3
2	26.6	26.3	25.7	25.3	24.9	25.0	25.2	25.3

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	21.8	21.3	20.8	20.4	19.9	19.9	19.8	19.0
27	23.8	23.0	22.7	22.3	22.1	21.7	20.8	20.2
22	25.0	24.7	24.1	23.7	23.3	23.3	22.4	21.2
17	25.8	25.9	25.3	25.0	24.6	24.4	24.5	23.7
12	26.7	26.2	26.0	26.0	25.7	25.8	25.7	25.3
7	26.5	26.3	26.2	26.1	26.0	26.0	25.8	25.4
2	26.5	26.5	26.5	25.7	25.0	24.3	24.0	24.0

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.1	19.4	18.7	17.9	17.8	18.2	18.3	17.6
27	22.1	21.3	20.1	20.0	19.5	19.3	18.9	18.1
22	24.4	23.7	22.7	22.3	21.6	20.1	19.0	19.4
17	26.4	26.0	26.1	24.7	24.6	23.0	24.2	23.5
12	28.2	28.0	28.1	27.0	26.5	26.5	27.0	26.3
7	28.0	29.0	28.2	28.1	27.3	26.3	25.3	25.0
2	26.7	26.2	25.7	26.0	26.1	25.0	23.7	23.5

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.7
27	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.6
22	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.6
17	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6
12	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
7	0.8	0.8	0.8	0.5	0.5	0.5	0.7	0.5
2	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.7

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	7.3	7.4	7.7	7.8	7.6	7.7	6.7	6.0
27	8.9	8.1	7.7	7.3	6.8	6.3	5.7	5.5
22	9.0	8.3	7.7	7.7	8.2	7.7	6.8	6.3
17	7.7	7.8	6.9	8.2	8.6	6.7	7.1	6.6
12	6.7	7.1	6.3	6.4	6.7	6.1	5.3	5.8
7	3.8	5.3	5.4	5.5	5.0	3.6	5.3	4.7
2	5.3	6.0	6.4	6.4	5.3	4.9	6.1	4.5

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	285.	285.	252.	252.	285.	285.	285.	252.
27	313.	346.	346.	313.	313.	346.	313.	313.
22	340.	340.	375.	340.	375.	375.	340.	340.
17	363.	363.	363.	363.	401.	401.	363.	363.
12	383.	383.	339.	383.	383.	383.	383.	383.
7	302.	302.	302.	440.	440.	440.	352.	440.
2	454.	492.	454.	454.	492.	526.	526.	363.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	125.	128.	120.	122.	134.	127.	117.	107.
27	115.	136.	138.	128.	125.	128.	117.	120.
22	106.	108.	124.	116.	126.	125.	121.	123.
17	101.	99.	100.	106.	115.	118.	105.	113.
12	89.	94.	85.	97.	98.	98.	102.	106.
7	84.	73.	68.	99.	104.	107.	97.	121.
2	105.	110.	97.	100.	109.	129.	141.	111.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	246.	258.	297.	319.	265.	235.	124.	93.
27	508.	418.	363.	285.	228.	164.	116.	108.
22	489.	402.	328.	315.	384.	334.	233.	158.
17	292.	306.	186.	373.	392.	210.	207.	179.
12	170.	188.	138.	166.	179.	155.	128.	152.
7	103.	101.	96.	108.	110.	88.	161.	144.
2	146.	172.	174.	147.	94.	107.	186.	130.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	27.	30.	34.	34.	34.	22.	1.	1.
27	18.	39.	31.	29.	19.	5.	3.	3.
22	11.	10.	19.	19.	17.	1.	6.	15.
17	13.	4.	9.	13.	14.	6.	6.	19.
12	-3.	6.	8.	6.	6.	5.	13.	19.
7	14.	7.	-5.	3.	4.	3.	11.	17.
2	3.	-5.	-21.	-11.	-3.	14.	29.	24.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-114.	-132.	-200.	-224.	-148.	-100.	43.	53.
27	-329.	-248.	-187.	-130.	-60.	48.	78.	83.
22	-267.	-181.	-96.	-110.	-151.	-85.	-21.	44.
17	-44.	-46.	68.	-130.	-120.	68.	46.	52.
12	128.	96.	108.	116.	101.	125.	141.	106.
7	102.	122.	143.	231.	223.	243.	84.	159.
2	201.	216.	204.	218.	292.	276.	170.	99.

LONGITUDE WEST

LATITUDE NORTH	T(W)	167	162	157	152	147	142	137	132
	32	20.3	19.8	19.8	19.7	19.3	18.7	18.3	17.7
	27	22.6	22.3	22.3	22.0	21.3	20.5	19.8	19.5
	22	24.3	24.3	23.8	23.4	23.1	22.5	22.0	21.5
	17	25.4	25.4	24.9	24.4	24.3	24.2	23.7	23.1
	12	26.3	26.2	25.7	25.3	25.2	25.2	25.2	25.0
	7	27.3	27.0	26.5	26.2	25.3	24.8	25.7	26.3
	2	26.2	26.0	25.5	25.3	24.7	24.6	24.9	25.3

LATITUDE NORTH	T(A)	167	162	157	152	147	142	137	132
	32	19.8	19.0	18.3	18.3	18.6	17.9	17.5	17.0
	27	22.2	21.5	21.4	21.3	20.8	20.0	19.3	19.0
	22	24.1	24.0	23.7	23.1	22.7	22.3	22.0	21.3
	17	25.3	25.3	25.3	24.4	24.3	23.9	23.0	22.8
	12	26.3	26.1	25.6	25.1	25.2	25.0	24.7	24.8
	7	27.0	26.7	26.2	25.5	24.3	24.6	25.0	25.2
	2	26.2	26.0	26.1	25.6	25.1	24.3	24.0	25.0

LATITUDE NORTH	E(A)	167	162	157	152	147	142	137	132
	32	17.8	17.0	16.9	16.9	16.9	16.4	15.6	15.1
	27	20.3	20.0	20.4	20.3	19.9	17.9	16.8	16.0
	22	23.0	23.4	23.1	22.8	22.6	20.9	20.1	19.2
	17	26.1	25.6	25.2	25.1	25.0	24.2	23.0	22.4
	12	26.8	27.6	26.9	27.2	27.4	27.5	27.9	28.0
	7	27.5	28.1	27.6	27.2	26.2	26.6	27.3	27.2
	2	27.3	26.1	25.9	24.8	23.7	24.7	25.1	24.7

LATITUDE NORTH	C	167	162	157	152	147	142	137	132
	32	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7
	27	0.7	0.6	0.7	0.7	0.8	0.8	0.7	0.7
	22	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.9
	17	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7
	12	0.5	0.5	0.6	0.8	0.7	0.8	0.7	0.5
	7	0.3	0.7	0.7	0.7	0.8	0.9	0.8	0.6
	2	0.2	0.4	0.4	0.3	0.4	0.5	0.6	0.6

LATITUDE NORTH	W	167	162	157	152	147	142	137	132
	32	10.0	9.2	7.8	7.5	8.8	8.2	7.6	7.3
	27	10.3	9.2	8.5	8.3	8.3	7.3	6.3	6.5
	22	7.8	8.9	8.5	8.7	7.8	6.9	5.9	6.5
	17	7.2	7.8	9.0	9.3	6.6	6.2	7.5	7.1
	12	9.9	10.5	9.7	9.1	7.3	7.3	7.2	6.6
	7	8.5	8.4	7.5	6.0	5.7	6.2	7.3	8.2
	2	7.3	6.4	4.7	7.0	6.5	8.1	6.8	7.8

LONGITUDE WEST

LATITUDE NORTH	Q(S)	167	162	157	152	147	142	137	132
	32	189.	189.	189.	162.	162.	189.	189.	189.
	27	219.	248.	219.	219.	188.	188.	219.	219.
	22	311.	311.	281.	281.	248.	248.	248.	174.
	17	345.	345.	345.	313.	313.	276.	276.	276.
	12	379.	379.	343.	259.	303.	259.	303.	379.
	7	473.	326.	326.	326.	279.	228.	279.	369.
	2	531.	471.	471.	503.	471.	434.	393.	393.

LATITUDE NORTH	Q(B)	167	162	157	152	147	142	137	132
	32	114.	119.	128.	112.	104.	120.	122.	122.
	27	107.	124.	112.	110.	95.	100.	116.	119.
	22	117.	117.	106.	109.	100.	103.	102.	79.
	17	106.	108.	102.	99.	99.	95.	103.	100.
	12	103.	101.	95.	75.	83.	74.	87.	99.
	7	117.	86.	87.	93.	88.	64.	81.	107.
	2	116.	112.	105.	118.	115.	112.	110.	105.

LATITUDE NORTH	Q(E)	167	162	157	152	147	142	137	132
	32	452.	400.	253.	216.	325.	249.	202.	169.
	27	559.	454.	353.	307.	270.	204.	149.	168.
	22	299.	422.	341.	339.	225.	178.	133.	160.
	17	194.	273.	384.	352.	133.	134.	221.	174.
	12	541.	501.	425.	306.	143.	139.	120.	85.
	7	474.	389.	244.	144.	117.	101.	180.	333.
	2	214.	179.	103.	216.	183.	283.	171.	304.

LATITUDE NORTH	Q(C)	167	162	157	152	147	142	137	132
	32	20.	30.	47.	42.	25.	26.	25.	21.
	27	17.	30.	31.	24.	17.	15.	13.	13.
	22	7.	11.	4.	11.	13.	6.	1.	6.
	17	3.	4.	-15.	1.	1.	8.	21.	9.
	12	1.	5.	4.	8.	1.	6.	15.	6.
	7	11.	10.	9.	17.	23.	5.	21.	36.
	2	1.	1.	-12.	-9.	-11.	10.	25.	10.

LATITUDE NORTH	Q(N)	167	162	157	152	147	142	137	132
	32	-397.	-360.	-238.	-208.	-292.	-206.	-160.	-122.
	27	-465.	-360.	-277.	-222.	-194.	-131.	-59.	-81.
	22	-113.	-240.	-171.	-178.	-90.	-38.	13.	-71.
	17	42.	-40.	-127.	-139.	81.	40.	-69.	-7.
	12	-266.	-228.	-183.	-130.	78.	40.	81.	189.
	7	-129.	-160.	-15.	73.	52.	58.	-3.	-108.
	2	201.	179.	275.	179.	184.	29.	88.	-27.

LONGITUDE WEST

T(W) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	18.0	18.5	18.5	18.7	18.5	17.9	17.6	16.7
27	21.0	21.2	21.2	21.2	20.9	20.2	19.6	18.9
22	23.6	23.7	23.4	23.0	22.3	21.8	21.1	20.7
17	24.8	24.9	24.7	24.4	23.9	23.2	22.8	22.7
12	25.6	25.5	25.4	25.0	25.0	24.5	24.4	24.1
7	26.3	26.4	26.1	25.6	25.4	25.4	25.5	25.5
2	25.1	25.1	25.3	25.5	25.3	25.1	24.6	24.1

T(A) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	17.0	17.0	18.0	18.2	18.5	18.4	18.0	17.2
27	20.3	21.0	21.4	21.3	21.1	20.4	19.8	18.8
22	23.3	23.6	23.5	23.0	22.7	22.1	21.4	20.6
17	24.8	25.2	25.1	24.5	24.0	23.5	22.8	22.0
12	26.3	25.8	25.5	25.3	25.1	24.6	24.2	24.0
7	27.0	26.4	25.8	25.6	25.3	25.3	25.2	24.6
2	26.7	26.5	26.3	25.7	25.0	24.6	24.3	24.0

E(A) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	15.8	16.0	17.4	17.6	18.0	18.4	17.7	16.8
27	18.3	20.2	21.0	20.7	20.3	19.7	18.7	17.5
22	22.7	23.3	23.7	22.9	21.9	21.1	19.9	18.2
17	25.2	25.8	25.6	25.1	23.8	22.9	21.9	20.6
12	28.1	27.6	27.2	25.8	26.0	26.0	24.7	24.0
7	28.5	28.5	28.5	28.5	28.3	27.8	27.2	26.3
2	27.7	27.7	26.5	26.0	25.9	25.9	26.0	26.1

C — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8
27	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.7
22	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.8
17	0.5	0.4	0.4	0.6	0.7	0.6	0.7	0.6
12	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.6
7	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.7
2	0.5	0.4	0.5	0.5	0.6	0.6	0.6	0.6

W — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	9.8	9.6	9.2	8.4	7.9	8.1	7.0	6.3
27	9.2	8.7	8.0	6.7	6.6	6.7	6.3	5.7
22	8.2	8.3	7.7	7.5	7.2	6.9	7.4	7.0
17	6.7	7.5	8.0	8.3	8.1	8.0	7.7	8.3
12	7.4	7.8	8.2	7.8	8.3	7.5	7.7	8.2
7	7.5	8.1	6.8	7.5	6.8	6.9	8.8	6.7
2	6.6	6.4	4.5	6.9	7.2	8.3	7.7	6.7

LONGITUDE WEST

Q(S) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	160.	160.	137.	160.	160.	160.	160.	137.
27	191.	216.	216.	216.	216.	216.	191.	191.
22	277.	277.	277.	277.	251.	277.	222.	190.
17	316.	343.	343.	286.	253.	286.	253.	286.
12	354.	354.	354.	354.	320.	283.	283.	320.
7	388.	351.	311.	266.	266.	266.	311.	311.
2	420.	456.	420.	420.	381.	381.	381.	381.

Q(B) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	123.	129.	99.	112.	105.	97.	100.	87.
27	115.	114.	107.	109.	109.	110.	101.	108.
22	119.	114.	110.	113.	102.	115.	98.	95.
17	107.	108.	107.	97.	91.	101.	97.	121.
12	89.	95.	99.	101.	95.	85.	93.	103.
7	88.	89.	84.	70.	71.	73.	87.	97.
2	79.	87.	91.	103.	101.	103.	99.	96.

Q(E) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	351.	373.	247.	201.	133.	86.	64.	47.
27	431.	281.	178.	114.	109.	101.	93.	85.
22	308.	297.	190.	179.	153.	138.	171.	182.
17	157.	195.	236.	266.	266.	240.	224.	352.
12	151.	193.	242.	231.	276.	160.	221.	285.
7	194.	264.	137.	142.	104.	122.	308.	163.
2	98.	93.	82.	183.	195.	292.	182.	95.

Q(C) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	39.	58.	19.	17.	1.	-17.	-12.	-13.
27	26.	7.	-7.	-3.	-6.	-6.	-5.	3.
22	10.	4.	-4.	1.	-12.	-9.	-9.	3.
17	1.	-9.	-13.	-4.	-4.	-10.	1.	24.
12	-21.	-10.	-4.	-10.	-4.	-3.	7.	4.
7	-21.	1.	9.	1.	3.	3.	11.	24.
2	-42.	-36.	-18.	-6.	9.	17.	10.	3.

Q(N) — LATITUDE NORTH	167	162	157	152	147	142	137	132
32	-354.	-400.	-228.	-171.	-79.	-7.	8.	16.
27	-382.	-187.	-62.	-5.	4.	11.	2.	-6.
22	-159.	-138.	-19.	-16.	8.	34.	-38.	-90.
17	52.	49.	13.	-74.	-101.	-46.	-69.	-211.
12	136.	75.	17.	31.	-48.	42.	-38.	-72.
7	128.	-3.	81.	54.	88.	68.	-97.	26.
2	286.	313.	267.	141.	77.	-31.	90.	187.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.0	16.8	17.0	17.7	17.9	17.7	17.0	16.0
27	20.3	21.0	21.3	21.0	20.4	19.9	19.1	18.0
22	23.2	23.0	23.2	22.7	22.0	21.3	21.2	21.0
17	24.4	24.5	24.3	23.6	23.0	22.7	22.3	22.3
12	25.7	25.4	24.9	24.7	24.6	25.3	24.6	24.4
7	26.9	26.3	26.3	26.3	26.3	26.0	25.3	25.2
2	27.0	26.3	25.7	26.6	27.1	25.9	25.7	25.5

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	15.0	15.8	16.7	17.0	17.5	17.7	17.0	15.4
27	19.2	19.3	20.4	20.2	20.2	19.6	18.8	17.9
22	21.7	21.7	22.3	22.3	22.2	21.5	21.0	19.9
17	23.8	24.3	24.3	24.2	23.5	23.2	22.3	21.5
12	25.2	25.1	25.1	24.6	24.0	24.0	24.0	22.8
7	26.3	25.9	26.2	25.9	25.4	25.0	24.5	24.8
2	26.6	26.6	26.6	26.2	25.6	24.3	24.0	24.6

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	13.0	14.0	15.6	16.0	17.0	16.9	15.9	14.3
27	16.9	18.0	19.2	19.2	19.3	18.3	16.8	15.8
22	19.5	20.5	21.3	21.6	21.1	19.9	18.7	16.9
17	23.3	23.8	23.9	23.3	21.9	20.9	20.2	19.2
12	27.1	25.6	25.4	25.1	23.2	23.0	24.0	22.0
7	27.2	27.2	26.7	26.6	26.3	25.7	25.5	26.2
2	26.7	27.0	27.8	28.2	27.2	26.2	26.0	27.5

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.7
27	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6
22	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.6
17	0.5	0.6	0.6	0.6	0.5	0.6	0.7	0.6
12	0.3	0.7	0.6	0.6	0.4	0.6	0.5	0.4
7	0.6	0.7	0.6	0.6	0.4	0.5	0.6	0.6
2	0.3	0.5	0.5	0.6	0.4	0.6	0.8	0.8

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	8.5	8.2	8.8	8.2	7.7	8.4	7.6	6.3
27	7.9	9.0	8.4	8.5	8.3	7.2	5.7	5.8
22	7.2	7.9	7.6	7.8	7.1	6.2	7.3	7.3
17	5.8	6.6	6.5	6.8	6.3	6.1	8.3	8.4
12	9.3	8.5	7.2	7.7	7.1	7.7	8.3	9.2
7	7.7	7.4	5.7	6.3	7.8	8.2	6.7	7.0
2	5.6	6.0	4.7	6.4	7.5	8.2	6.6	7.5

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	174.	197.	174.	174.	197.	174.	174.	174.
27	231.	231.	231.	231.	231.	205.	231.	231.
22	294.	266.	266.	266.	266.	294.	319.	266.
17	330.	299.	299.	299.	330.	299.	264.	299.
12	424.	293.	331.	331.	397.	331.	366.	397.
7	360.	319.	360.	360.	432.	398.	360.	360.
2	497.	428.	428.	388.	465.	398.	293.	293.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	130.	140.	114.	118.	123.	107.	110.	121.
27	136.	140.	126.	125.	116.	109.	125.	125.
22	145.	129.	121.	114.	107.	120.	138.	137.
17	121.	106.	103.	97.	111.	106.	102.	127.
12	119.	92.	96.	100.	129.	123.	119.	146.
7	102.	89.	97.	101.	123.	119.	108.	101.
2	121.	99.	88.	96.	128.	116.	97.	83.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	284.	250.	219.	203.	131.	168.	125.	90.
27	297.	433.	320.	305.	229.	153.	106.	99.
22	285.	325.	265.	240.	158.	122.	212.	265.
17	148.	176.	158.	155.	143.	148.	339.	408.
12	381.	364.	186.	227.	234.	363.	345.	564.
7	318.	234.	148.	176.	319.	381.	175.	165.
2	174.	153.	77.	155.	306.	344.	177.	173.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	34.	33.	11.	23.	13.	1.	1.	15.
27	35.	61.	30.	27.	7.	9.	7.	3.
22	43.	41.	28.	13.	-6.	-5.	6.	32.
17	14.	6.	1.	-17.	-13.	-13.	1.	27.
12	19.	11.	-6.	4.	17.	40.	20.	59.
7	19.	12.	3.	10.	28.	33.	22.	12.
2	9.	-8.	-17.	11.	45.	52.	45.	27.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-274.	-227.	-170.	-170.	-70.	-102.	-61.	-52.
27	-237.	-403.	-246.	-226.	-122.	-67.	-7.	5.
22	-181.	-229.	-148.	-101.	7.	57.	-38.	-169.
17	47.	12.	38.	64.	89.	59.	-178.	-264.
12	-95.	-175.	56.	-1.	17.	-195.	-119.	-373.
7	-78.	-18.	113.	73.	-38.	-135.	56.	83.
2	193.	185.	281.	127.	-15.	-126.	-26.	10.

LONGITUDE WEST

T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	15.4	15.7	16.0	16.7	17.5	17.2	16.5	15.4
27	19.3	19.5	19.6	19.6	19.8	19.5	18.7	17.8
22	21.7	21.8	22.0	22.0	21.5	21.3	20.5	19.6
17	24.0	23.7	23.3	22.7	22.5	22.2	22.4	21.7
12	25.3	25.2	24.0	23.7	24.2	24.4	24.1	23.6
7	26.3	25.8	25.3	25.3	25.3	25.3	25.3	25.3
2	26.6	26.3	25.6	26.0	25.9	25.6	25.6	26.0

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	14.2	14.7	15.3	16.0	16.7	16.7	16.5	15.0
27	18.4	18.0	18.3	18.7	19.0	19.0	18.4	17.0
22	21.1	20.7	20.7	20.7	20.8	20.8	20.2	19.0
17	22.9	23.1	23.1	22.6	22.2	22.1	22.0	21.6
12	24.8	24.5	24.0	24.3	24.2	23.7	23.5	23.5
7	26.2	25.9	25.5	25.5	25.5	25.3	25.3	25.9
2	26.6	26.6	26.6	25.9	25.5	25.3	25.8	24.2

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	13.0	12.3	13.6	14.9	15.9	15.6	14.8	13.5
27	15.1	15.5	16.4	17.7	18.1	17.4	16.2	14.8
22	17.3	17.0	17.5	19.0	19.5	19.2	18.2	16.7
17	19.9	20.0	20.8	21.3	21.4	22.1	21.6	20.5
12	24.0	23.9	24.1	24.8	24.5	23.4	24.0	24.0
7	26.9	26.4	26.1	26.4	27.1	27.5	27.3	27.2
2	28.3	27.0	26.5	27.1	27.6	28.1	28.1	27.7

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.8
27	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8
22	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.7
17	0.5	0.4	0.4	0.7	0.6	0.8	0.7	0.7
12	0.5	0.4	0.6	0.6	0.7	0.8	0.7	0.6
7	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.7
2	0.7	0.5	0.5	0.6	0.6	0.6	0.5	0.7

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	9.0	7.7	8.3	9.7	11.1	9.2	8.3	7.5
27	6.8	7.8	7.8	8.9	10.2	9.4	8.0	7.5
22	6.8	7.6	7.8	8.5	7.7	8.7	8.3	6.9
17	8.2	7.8	7.0	7.2	6.0	6.8	7.0	8.5
12	9.0	8.7	9.1	8.0	9.4	8.3	6.9	8.6
7	9.1	10.0	8.4	8.1	8.2	7.6	7.3	6.6
2	8.0	5.8	5.2	7.7	7.5	6.0	4.9	4.2

LONGITUDE WEST

Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	228.	228.	228.	195.	160.	195.	195.	195.
27	289.	255.	255.	255.	255.	218.	218.	218.
22	351.	351.	351.	318.	281.	241.	241.	281.
17	381.	413.	413.	305.	345.	261.	305.	305.
12	408.	443.	369.	369.	326.	279.	326.	369.
7	390.	390.	390.	345.	295.	295.	295.	345.
2	361.	451.	451.	408.	408.	408.	451.	361.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	131.	132.	124.	106.	90.	103.	99.	106.
27	139.	132.	127.	117.	115.	100.	100.	109.
22	141.	149.	149.	133.	112.	97.	97.	118.
17	140.	141.	132.	100.	113.	85.	102.	102.
12	119.	128.	102.	92.	91.	91.	99.	103.
7	96.	95.	94.	83.	71.	72.	73.	76.
2	81.	99.	91.	95.	97.	93.	95.	105.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	282.	219.	231.	291.	347.	258.	197.	141.
27	202.	296.	263.	308.	381.	356.	238.	200.
22	241.	346.	371.	407.	237.	353.	298.	173.
17	491.	385.	229.	196.	125.	122.	157.	291.
12	516.	471.	357.	189.	376.	359.	166.	277.
7	461.	502.	313.	262.	237.	166.	153.	122.
2	281.	145.	109.	246.	199.	96.	72.	78.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	43.	31.	24.	27.	36.	19.	1.	12.
27	25.	47.	41.	32.	33.	19.	10.	24.
22	17.	34.	41.	44.	22.	18.	10.	17.
17	36.	19.	6.	3.	8.	3.	12.	4.
12	18.	25.	1.	-20.	1.	24.	17.	4.
7	4.	-4.	-7.	-7.	-7.	1.	1.	-16.
2	1.	-7.	-21.	4.	12.	8.	-4.	30.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-229.	-154.	-152.	-230.	-313.	-185.	-102.	-64.
27	-78.	-221.	-176.	-204.	-274.	-257.	-131.	-116.
22	-48.	-178.	-210.	-267.	-91.	-227.	-164.	-27.
17	-287.	-132.	46.	6.	100.	51.	34.	-92.
12	-245.	-182.	-91.	108.	-142.	-194.	45.	-14.
7	-171.	-203.	-10.	6.	-6.	58.	70.	163.
2	-3.	215.	273.	64.	101.	212.	289.	149.

T(W)	LONGITUDE WEST 167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.3	16.2	16.0	16.5	17.2	16.9	15.9	14.8
27	19.0	19.0	19.2	19.4	19.6	19.1	18.3	17.5
22	22.1	22.1	22.0	21.4	21.3	21.1	20.5	20.0
17	24.0	23.7	23.3	22.7	22.5	22.0	21.6	21.2
12	26.5	25.7	23.9	23.6	24.2	23.3	22.6	22.5
7	27.4	26.7	25.2	24.7	25.3	25.2	25.1	25.1
2	27.3	26.6	25.9	25.5	25.7	25.7	25.7	25.7

T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	16.1	16.0	15.5	16.3	17.3	16.7	15.8	14.4
27	18.6	18.5	18.0	18.7	19.3	19.0	18.0	17.0
22	21.6	21.2	21.4	21.2	21.2	20.6	20.0	19.0
17	23.3	23.3	23.3	23.0	22.7	22.5	22.0	21.0
12	25.1	24.9	24.5	24.6	24.4	23.8	24.1	23.6
7	25.8	26.1	26.7	26.0	25.4	25.3	25.6	26.0
2	26.8	27.0	27.0	26.6	26.3	26.3	26.5	26.5

E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	14.0	13.9	14.1	15.7	16.2	14.9	13.5	12.0
27	16.1	16.1	15.1	17.0	17.7	17.0	16.2	14.6
22	18.8	18.5	18.8	19.0	20.1	20.2	18.1	17.2
17	21.0	21.2	21.4	20.9	21.4	21.5	19.8	18.7
12	23.6	23.7	24.0	24.4	24.9	24.5	23.5	23.1
7	25.7	25.9	27.8	28.3	28.1	27.9	27.7	27.6
2	29.1	29.5	29.7	29.7	29.1	29.0	29.1	29.2

C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7
27	0.7	0.8	0.6	0.6	0.7	0.7	0.7	0.7
22	0.5	0.5	0.5	0.6	0.7	0.8	0.7	0.7
17	0.4	0.4	0.5	0.6	0.5	0.6	0.7	0.8
12	0.6	0.3	0.4	0.4	0.5	0.6	0.7	0.6
7	0.6	0.3	0.2	0.5	0.6	0.7	0.7	0.6
2	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6

W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	8.6	9.2	10.0	7.9	7.5	6.6	7.4	6.6
27	7.5	7.7	7.7	7.5	7.8	7.6	7.2	6.5
22	6.8	6.2	6.2	6.6	7.0	7.1	7.1	5.9
17	5.6	5.8	5.6	5.6	6.2	6.3	6.3	7.2
12	5.6	5.8	6.7	7.0	8.2	7.6	7.8	8.5
7	6.2	8.0	9.6	8.7	9.4	9.4	9.7	10.3
2	4.9	6.0	5.2	6.8	7.4	6.9	7.1	7.7

Q(S)	LONGITUDE WEST 167	162	157	152	147	142	137	132
LATITUDE NORTH 32	248.	248.	290.	248.	248.	290.	290.	290.
27	311.	266.	352.	352.	311.	311.	311.	311.
22	412.	412.	412.	373.	330.	282.	330.	330.
17	468.	468.	431.	390.	431.	390.	345.	295.
12	405.	518.	485.	485.	447.	405.	358.	405.
7	414.	531.	561.	458.	414.	366.	366.	414.
2	465.	465.	465.	465.	465.	465.	421.	421.

Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	103.	103.	120.	98.	94.	115.	118.	125.
27	117.	103.	143.	129.	111.	110.	114.	121.
22	134.	140.	135.	119.	102.	94.	113.	121.
17	139.	134.	120.	108.	116.	102.	98.	95.
12	124.	137.	110.	103.	105.	93.	74.	90.
7	120.	127.	94.	80.	88.	80.	76.	80.
2	102.	89.	78.	78.	87.	67.	77.	76.

Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	253.	295.	304.	125.	117.	111.	156.	125.
27	210.	229.	283.	196.	205.	188.	151.	135.
22	215.	187.	176.	166.	150.	142.	182.	131.
17	183.	167.	140.	130.	132.	112.	140.	204.
12	218.	193.	145.	132.	247.	143.	149.	213.
7	249.	407.	277.	138.	259.	260.	275.	309.
2	115.	109.	59.	68.	121.	103.	107.	134.

Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	7.	8.	20.	7.	-3.	6.	3.	11.
27	12.	16.	37.	21.	10.	4.	9.	13.
22	14.	23.	15.	6.	3.	15.	15.	24.
17	17.	10.	1.	-7.	-5.	-13.	-10.	6.
12	32.	19.	-16.	-28.	-7.	-16.	-47.	-38.
7	40.	20.	-58.	-45.	-4.	-4.	-20.	-37.
2	10.	-10.	-23.	-30.	-18.	-17.	-23.	-25.

Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-116.	-158.	-155.	19.	41.	59.	13.	29.
27	-28.	-83.	-111.	5.	-15.	9.	38.	42.
22	49.	62.	86.	82.	75.	32.	21.	55.
17	129.	157.	171.	160.	189.	189.	118.	-10.
12	31.	170.	246.	279.	103.	185.	182.	140.
7	6.	-22.	247.	286.	72.	31.	36.	63.
2	239.	278.	352.	350.	276.	292.	260.	236.

		LONGITUDE WEST							
	T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	16.2	16.0	16.4	16.9	17.0	16.8	16.1	15.1
	27	19.5	19.0	19.6	19.9	19.9	19.2	18.4	17.4
	22	22.2	22.3	22.3	22.3	21.9	21.0	20.2	18.9
	17	23.8	24.2	24.3	23.5	23.3	22.8	22.0	21.7
	12	25.3	25.0	24.6	24.4	24.4	24.5	24.3	23.7
	7	26.2	26.2	25.5	25.4	25.9	26.3	26.7	27.3
	2	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
	T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	16.1	16.0	16.5	16.5	16.3	16.1	15.7	15.0
	27	19.1	19.1	19.8	19.8	19.6	19.1	18.5	17.1
	22	21.5	21.7	22.5	22.1	21.9	21.3	20.3	19.5
	17	23.7	24.0	24.3	23.6	23.3	23.0	22.0	21.2
	12	27.1	25.4	25.0	25.2	25.0	24.9	24.0	22.5
	7	26.7	26.3	26.2	26.3	26.3	25.8	25.3	25.1
	2	27.2	27.0	27.4	27.1	26.7	26.3	25.9	25.4
	E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	15.0	14.9	15.0	14.7	14.7	14.3	13.6	13.2
	27	17.9	18.3	18.9	17.9	17.4	17.0	15.8	14.8
	22	20.1	20.9	21.6	20.6	20.3	20.0	18.2	15.8
	17	23.0	24.0	24.1	23.3	22.6	20.8	19.9	19.6
	12	27.5	28.0	27.1	25.0	25.0	24.7	23.3	21.9
	7	30.2	29.0	27.9	29.9	29.7	28.2	27.6	27.3
	2	29.6	30.5	30.8	32.1	30.6	29.1	28.5	28.5
	C	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7
	27	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7
	22	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.5
	17	0.5	0.4	0.6	0.6	0.6	0.7	0.8	0.8
	12	0.3	0.4	0.7	0.5	0.4	0.6	0.6	0.5
	7	0.3	0.5	0.8	0.5	0.3	0.5	0.7	0.8
	2	0.3	0.6	0.6	0.5	0.4	0.4	0.5	0.6
	W	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	7.7	7.2	7.3	6.7	7.6	6.9	7.3	7.5
	27	8.5	8.4	8.4	8.2	7.3	6.5	6.9	7.2
	22	7.4	7.0	7.3	7.5	7.2	6.6	6.6	6.5
	17	6.3	6.6	6.8	6.9	8.3	7.4	7.3	7.2
	12	9.0	8.8	8.0	7.2	8.3	8.1	8.2	9.2
	7	8.2	8.5	6.2	7.4	8.3	7.7	7.8	6.8
	2	6.7	6.0	4.0	6.2	6.4	6.0	5.7	5.5

		LONGITUDE WEST							
	Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	350.	350.	300.	300.	350.	350.	350.	350.
	27	361.	361.	361.	409.	361.	361.	361.	361.
	22	418.	418.	418.	418.	418.	369.	418.	461.
	17	466.	506.	422.	422.	422.	373.	319.	319.
	12	543.	508.	375.	468.	508.	424.	424.	468.
	7	539.	465.	318.	465.	539.	465.	372.	318.
	2	531.	414.	414.	458.	497.	497.	458.	414.
	Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	113.	112.	97.	104.	122.	123.	121.	118.
	27	111.	103.	101.	120.	112.	110.	111.	118.
	22	122.	118.	106.	114.	113.	98.	117.	129.
	17	115.	120.	102.	103.	106.	99.	90.	96.
	12	88.	98.	78.	98.	107.	95.	109.	133.
	7	95.	94.	63.	80.	97.	104.	101.	102.
	2	95.	77.	71.	77.	93.	103.	104.	103.
	Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	129.	100.	117.	120.	173.	136.	154.	140.
	27	254.	184.	196.	256.	191.	130.	151.	160.
	22	227.	174.	170.	223.	186.	122.	139.	151.
	17	150.	156.	168.	155.	298.	237.	213.	199.
	12	279.	197.	155.	169.	271.	274.	340.	484.
	7	165.	255.	101.	70.	167.	225.	297.	244.
	2	124.	81.	44.	46.	87.	113.	118.	112.
	Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	4.	1.	-3.	11.	22.	20.	12.	3.
	27	14.	-4.	-7.	4.	9.	3.	-3.	9.
	22	21.	17.	-6.	6.	1.	-8.	-3.	-16.
	17	3.	6.	1.	-3.	1.	-6.	1.	15.
	12	-65.	-14.	-13.	-23.	-20.	-13.	10.	44.
	7	-17.	-4.	-18.	-27.	-14.	16.	44.	60.
	2	-19.	-12.	-15.	-15.	-6.	5.	14.	24.
	Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH	32	106.	139.	90.	66.	34.	72.	64.	90.
	27	-18.	78.	72.	29.	50.	119.	102.	75.
	22	48.	109.	148.	74.	119.	159.	165.	198.
	17	199.	225.	152.	168.	18.	45.	16.	10.
	12	241.	228.	155.	225.	151.	68.	-36.	-193.
	7	297.	120.	173.	342.	289.	121.	-70.	-88.
	2	332.	270.	315.	351.	323.	275.	222.	175.

T(W) — Latitude North	Longitude West 167	162	157	152	147	142	137	132
32	16.8	17.0	17.6	17.8	18.0	17.7	17.2	15.7
27	20.6	20.6	21.0	21.2	21.0	20.0	19.3	17.9
22	23.3	23.7	24.0	23.1	22.4	21.7	21.0	20.2
17	25.2	25.2	25.1	24.1	24.0	23.5	22.5	21.7
12	26.0	26.0	25.8	25.4	25.3	25.3	25.2	24.1
7	27.2	27.3	27.3	27.1	26.7	26.6	26.8	27.4
2	28.1	27.7	27.4	27.1	26.8	26.6	26.6	26.7

T(A) — Latitude North	167	162	157	152	147	142	137	132
32	16.5	17.0	18.3	18.3	18.5	17.8	16.8	15.5
27	20.2	20.7	21.1	21.4	20.8	19.9	19.1	17.4
22	23.1	23.7	23.8	23.0	22.5	22.1	21.4	19.4
17	25.3	26.2	25.2	23.7	23.5	23.0	22.0	21.5
12	26.0	26.0	26.1	25.3	25.0	25.3	25.1	24.8
7	26.6	26.7	26.6	26.4	26.3	26.2	26.1	26.5
2	27.6	27.4	27.7	27.2	26.8	26.7	26.6	26.5

E(A) — Latitude North	167	162	157	152	147	142	137	132
32	15.1	16.0	17.5	17.9	17.1	15.6	14.6	13.5
27	18.5	19.3	20.2	21.0	19.0	17.3	16.2	14.9
22	23.6	24.0	23.8	22.3	21.3	20.0	19.1	16.6
17	27.1	28.9	25.0	23.0	22.9	22.0	20.7	19.4
12	29.2	27.8	27.2	26.7	26.0	25.0	25.9	26.1
7	30.2	30.0	29.4	29.4	29.5	29.7	30.1	30.1
2	30.5	30.8	31.0	29.5	29.3	29.2	29.9	31.1

C — Latitude North	167	162	157	152	147	142	137	132
32	0.8	0.7	0.7	0.6	0.6	0.6	0.7	0.9
27	0.7	0.7	0.6	0.6	0.6	0.7	0.8	0.8
22	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8
17	0.5	0.6	0.6	0.6	0.6	0.7	0.8	0.9
12	0.7	0.5	0.5	0.5	0.7	0.8	0.7	0.7
7	0.9	0.7	0.7	0.7	0.9	0.9	0.6	0.8
2	0.4	0.5	0.6	0.6	0.7	0.7	0.6	0.8

W — Latitude North	167	162	157	152	147	142	137	132
32	6.7	7.1	6.7	6.4	6.5	5.9	5.6	5.7
27	6.7	7.3	6.6	7.2	7.2	7.1	6.5	6.8
22	6.5	6.4	6.9	7.6	7.6	7.6	7.4	8.1
17	5.6	6.3	7.3	8.0	7.8	8.1	8.4	8.3
12	7.1	8.0	7.5	8.7	8.8	8.1	9.2	8.6
7	7.1	6.9	6.7	7.5	8.0	7.8	8.2	8.2
2	4.6	4.2	3.8	5.6	5.8	5.8	6.2	6.2

Q(S) — Latitude North	Longitude West 167	162	157	152	147	142	137	132
32	332.	388.	388.	439.	439.	439.	388.	272.
27	389.	389.	440.	440.	440.	389.	333.	333.
22	438.	438.	438.	387.	387.	387.	331.	331.
17	476.	431.	431.	431.	431.	381.	326.	267.
12	373.	466.	466.	466.	373.	319.	373.	373.
7	253.	361.	361.	361.	253.	253.	409.	309.
2	471.	434.	393.	393.	348.	348.	393.	298.

Q(B) — Latitude North	167	162	157	152	147	142	137	132
32	101.	109.	97.	110.	113.	123.	119.	87.
27	110.	102.	110.	107.	118.	110.	100.	106.
22	105.	102.	105.	97.	98.	97.	86.	107.
17	99.	75.	99.	111.	112.	104.	94.	78.
12	78.	99.	97.	103.	91.	79.	89.	77.
7	63.	84.	87.	87.	62.	61.	93.	78.
2	104.	94.	79.	86.	79.	77.	85.	66.

Q(E) — Latitude North	167	162	157	152	147	142	137	132
32	105.	98.	64.	55.	85.	97.	98.	87.
27	151.	159.	116.	126.	183.	185.	155.	154.
22	120.	124.	167.	218.	212.	219.	195.	333.
17	91.	64.	221.	310.	280.	322.	342.	331.
12	123.	248.	207.	319.	361.	333.	392.	202.
7	169.	170.	177.	222.	233.	195.	233.	298.
2	111.	83.	63.	120.	117.	110.	105.	80.

Q(C) — Latitude North	167	162	157	152	147	142	137	132
32	8.	1.	-19.	-13.	-13.	-3.	9.	5.
27	11.	-3.	-3.	-6.	6.	3.	6.	14.
22	6.	1.	6.	4.	-4.	-13.	-12.	26.
17	-3.	-25.	-3.	13.	16.	17.	17.	7.
12	1.	1.	-9.	4.	11.	1.	4.	-24.
7	17.	17.	19.	21.	13.	13.	23.	30.
2	10.	5.	-5.	-3.	1.	-3.	1.	5.

Q(N) — Latitude North	167	162	157	152	147	142	137	132
32	118.	180.	247.	289.	255.	222.	162.	93.
27	116.	132.	217.	214.	132.	91.	73.	59.
22	208.	212.	160.	69.	82.	83.	62.	-135.
17	289.	318.	115.	-3.	24.	-61.	-127.	-150.
12	172.	119.	172.	40.	-91.	-94.	-112.	119.
7	3.	90.	79.	31.	-56.	-17.	60.	-97.
2	247.	253.	257.	191.	152.	164.	203.	146.

	LONGITUDE WEST							
T(W)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.0	20.8	21.0	20.9	20.4	19.7	18.3	16.8
27	23.4	23.4	23.4	23.3	22.1	21.2	20.3	18.7
22	24.8	24.6	24.3	23.7	22.7	21.7	21.1	20.7
17	25.5	25.4	25.0	23.8	23.0	22.2	22.0	21.5
12	25.9	25.9	25.5	25.0	24.9	24.6	23.9	21.9
7	27.6	27.4	26.9	26.9	27.0	26.6	27.2	26.3
2	28.1	28.1	28.1	28.0	27.4	27.1	27.1	26.6
T(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.2	20.7	20.9	20.2	20.2	19.2	18.1	16.9
27	24.3	23.9	23.4	22.8	21.8	20.9	20.1	18.0
22	25.5	25.0	24.5	23.8	22.8	21.9	21.3	20.5
17	26.1	26.0	25.3	24.3	23.4	22.8	22.1	21.6
12	26.8	26.2	25.6	25.0	24.7	24.6	24.6	22.7
7	26.9	26.4	26.3	26.2	26.2	26.2	26.2	26.3
2	26.9	26.8	27.0	27.0	27.0	26.4	26.0	26.0
E(A)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	20.1	20.2	19.6	18.9	18.2	16.9	16.0	15.2
27	23.7	23.0	21.7	20.5	19.8	18.0	16.8	16.4
22	25.0	24.2	22.7	21.9	20.5	19.3	18.6	18.1
17	26.5	26.1	24.3	22.7	22.1	21.8	20.1	19.1
12	26.8	26.7	26.0	25.0	24.8	24.8	24.3	21.5
7	30.7	29.5	28.7	28.4	28.4	28.4	29.2	29.2
2	29.0	29.5	30.1	29.0	29.3	27.5	26.8	28.0
C	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	0.7	0.7	0.5	0.6	0.7	0.7	0.7	0.7
27	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7
22	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9
17	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
12	0.5	0.4	0.6	0.7	0.8	0.7	0.5	0.7
7	0.8	0.7	0.7	0.7	0.7	0.8	0.6	0.8
2	0.7	0.6	0.5	0.5	0.6	0.7	0.8	0.9
W	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	5.4	5.8	5.2	4.8	5.4	5.6	5.8	6.4
27	5.7	6.4	7.3	7.2	7.0	6.4	6.5	6.8
22	6.6	7.1	7.7	8.1	8.0	7.3	7.9	8.5
17	7.3	7.0	8.9	8.7	9.2	7.8	7.7	7.6
12	7.7	8.3	9.3	8.7	9.3	8.3	7.1	7.1
7	8.0	9.0	7.5	7.3	8.0	7.5	9.2	6.3
2	4.5	4.8	4.1	4.1	5.2	5.3	6.6	4.5

	LONGITUDE WEST							
Q(S)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	404.	404.	505.	457.	404.	404.	404.	404.
27	499.	499.	499.	451.	451.	451.	399.	399.
22	489.	489.	489.	443.	391.	391.	335.	274.
17	475.	475.	475.	430.	380.	380.	380.	326.
12	458.	497.	415.	366.	314.	366.	458.	366.
7	300.	350.	350.	350.	350.	300.	396.	300.
2	333.	376.	416.	416.	376.	333.	285.	233.
Q(B)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	97.	101.	125.	124.	109.	116.	114.	111.
27	100.	108.	119.	120.	118.	124.	114.	118.
22	99.	106.	114.	108.	101.	102.	90.	81.
17	96.	97.	107.	100.	92.	90.	101.	90.
12	92.	106.	96.	90.	81.	90.	101.	88.
7	74.	91.	88.	90.	91.	76.	100.	68.
2	96.	104.	107.	110.	93.	93.	89.	67.
Q(E)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	57.	86.	91.	92.	107.	118.	103.	93.
27	98.	136.	231.	257.	199.	175.	176.	140.
22	158.	201.	298.	344.	316.	218.	273.	343.
17	195.	180.	447.	388.	386.	195.	245.	243.
12	251.	331.	433.	379.	439.	302.	157.	140.
7	265.	425.	233.	225.	316.	221.	437.	110.
2	132.	134.	103.	116.	124.	150.	232.	98.
Q(C)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	-5.	3.	3.	14.	5.	12.	5.	-3.
27	-21.	-13.	1.	15.	9.	8.	6.	19.
22	-19.	-12.	-7.	-4.	-4.	-6.	-7.	7.
17	-18.	-17.	-11.	-18.	-15.	-19.	-4.	-4.
12	-28.	-10.	-4.	1.	8.	1.	-20.	-23.
7	23.	36.	18.	21.	26.	12.	37.	1.
2	22.	25.	18.	17.	9.	15.	29.	11.
Q(N)	167	162	157	152	147	142	137	132
LATITUDE NORTH 32	255.	214.	287.	227.	185.	159.	183.	204.
27	322.	268.	149.	60.	126.	145.	103.	121.
22	251.	195.	85.	-6.	-22.	78.	-22.	-158.
17	203.	215.	-68.	-41.	-83.	115.	38.	-5.
12	144.	71.	-111.	-103.	-215.	-26.	221.	162.
7	-63.	-203.	12.	15.	-83.	-10.	-178.	121.
2	83.	113.	188.	174.	151.	75.	-66.	56.

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